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ABSTRACT

Intended to teach instructors how to use the NovaNET computer system or the PLATO system to deliver instruction, this manual provides instructions for using both NovaNET, which supercedes PLATO, and the crouter software package, which is a general purpose tool for managing instruction on the NovaNET computer. This self-instructional manual is divided into three sections, each of which teaches a group of skills needed by NovaNET instructors: (1) General Instructor Options, which teaches the user how to sign on to the system, how to get help and information about NovaNET and the system staff, and how to use the network's advanced communications features; (2) Managing Instruction with Crouter, which teaches the normal, daily operation of crouter to manage instruction, i.e., how to set up a class roster, see the curriculum being delivered, and monitor student progress and performance; and (3) Creating a Crouter Curriculum, which explains how the instructor who wishes to adapt the standard curriculum to the needs of a specific class can select lessons from the large catalog of NovaNET lessons and build them into a tailor-made crouter curriculum. (RP)

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User Manual

For *crouter* Instructors

Monica B. Fortner
Dennis M. Davis

University of Illinois

July, 1987

IR012961

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NovaNET User Manual

for *Crouter* Instructors

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Preface

The NovaNET computer system supercedes the PLATO system. Both systems were designed for teaching students. This manual is intended to teach instructors how to use NovaNET (or PLATO) to deliver instruction. The manual consists of three main sections, each of which teaches a group of skills needed by NovaNET instructors.

A. General instructor options.
The first section of this manual teaches you how to sign on the the NovaNET system, how to get help and information about NovaNET and the system staff, and how to use the network's advanced communications features.

B. Managing Instruction with *Crouter*
This section teaches the normal, daily operation of *crouter* to manage instruction: how to set up your class roster, see the curriculum you are delivering, and monitor student progress and performance.

C. Creating a crouter Curriculum
After you have become familiar with the standard curriculum, you may wish to tailor a curriculum to your classes' needs. This section teaches you how to select lessons from the large catalog of NovaNET lessons and build them into a crouter curriculum that you design and build yourself.

Sections B and C can also be used by users with Authors signons who will be using *crouter* to manage instruction.

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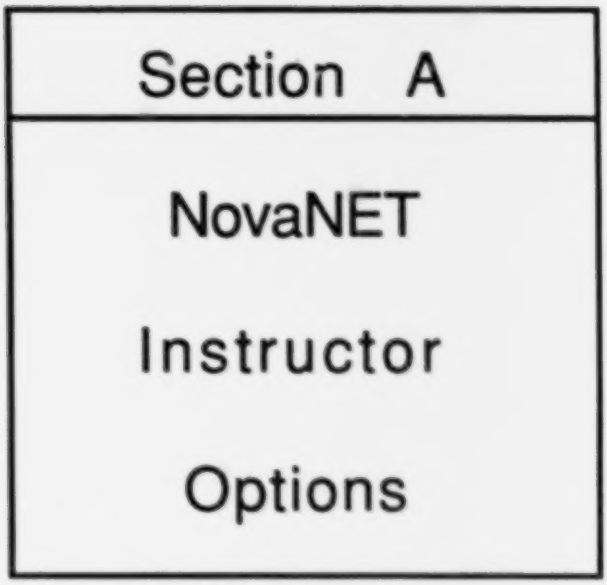

Section A
NovaNET
Instructor
Options

CHAPTER 1: SIGN-ON PROCEDURE

1. If necessary, turn on your terminal. Then press the key labeled NEXT one or more times until you see the display with the words *Welcome to PLATO* on it.

The NEXT key is located just to the right of the semi-colon key. If you are not using a standard PLATO keyset, consult the key conversion chart for your terminal type.

2. Type your *signon name* (PLATO name) at the arrow and press NEXT.

Your signon name (and group) should be written on the next page of this manual. If you make typing errors during the signon process, use the ERASE key (just above NEXT) to delete characters up to the error, then continue typing.

3. Type the name of your *group* and press SHIFT-STOP.

The key labeled STOP is located at the extreme lower right hand of the keyset. Type the shifted form of the STOP (or any function key) just as you would type a shifted (capital) letter: while holding down the SHIFT-key, press the STOP key.

4. Enter your *password* at the arrow and press NEXT.

a. The first time you sign on, you will be asked to **choose a password**:

- Passwords can be any combination of letters and/or numbers up to 10 characters long.
- When you type your password, a random number of Xs will appear on the screen at the arrow (not necessarily the same number of Xs as characters you have typed). This convention prevents others from seeing your password as you type it--or even how many characters it contains.
- To make sure you typed what you intended, type your password again, then press NEXT.
- Remember your password. If you forget it, you will not be able to sign on again until your group director (or some other member of the system staff) clears your password in your permanent record, thus permitting you to choose a new one.

b. How to **change your password**:

- When you reach the display that asks for your password, instead of typing it press LAB "for special options" according to the directions at the bottom of the screen.
- On the next display, press LAB to change your password. (Ignore the other options.)
- From then on, the process is just like that for choosing a password as described above.

5. **You should then see the display called *Resources for Instructors* (see next chapter).**

Signon Information

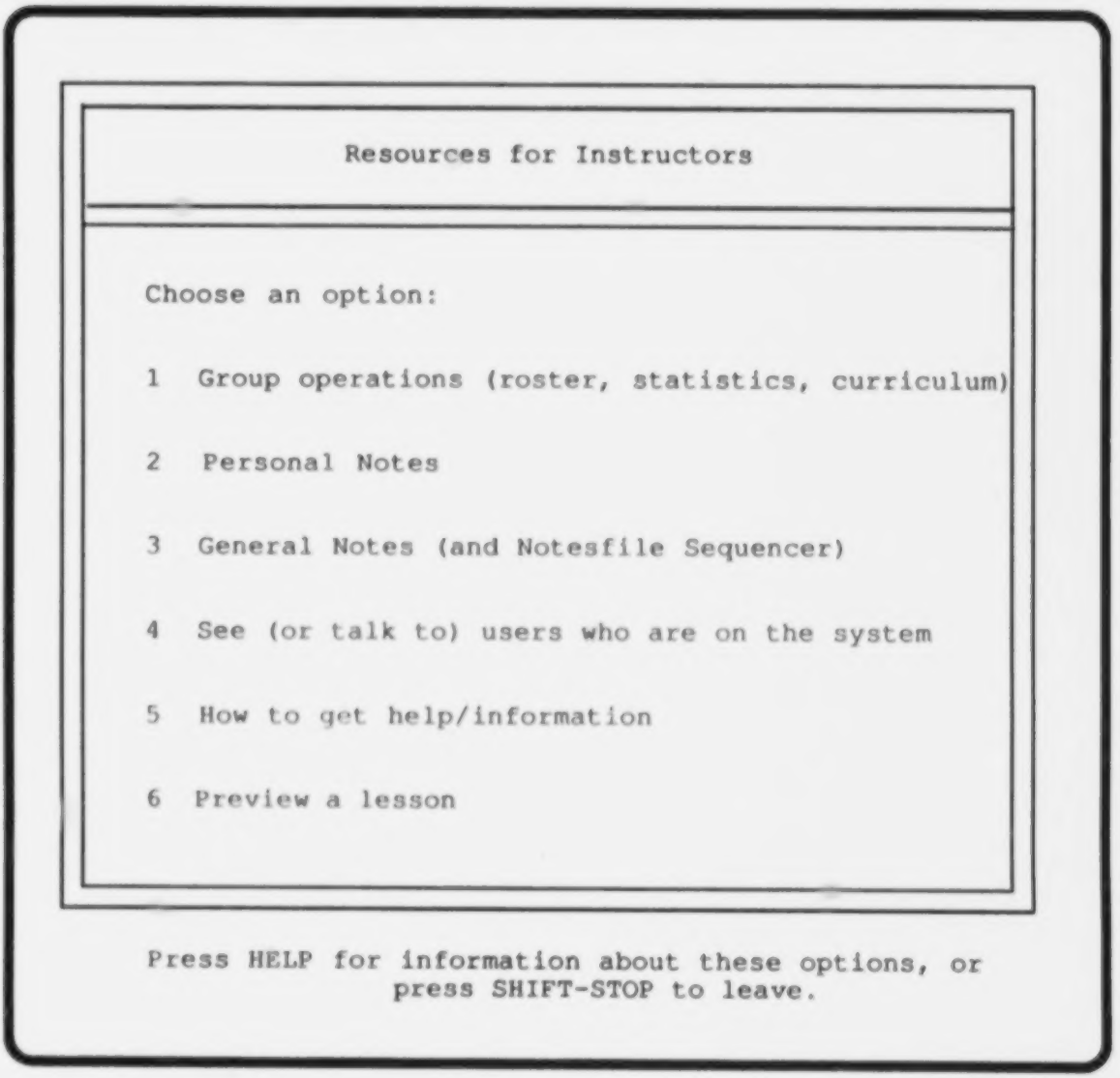
Your Signon NAME is: _____

Your GROUP is: _____

Your SYSTEM is: _____

CHAPTER 2: RESOURCES FOR INSTRUCTORS

The following display is your "front door" to the NovaNET sytem. You arrive on this display automatically when you sign on, and you merely press the number associated with the operation you wish to perform.


Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
3 General Notes (and Notesfile Sequencer)
4 See (or talk to) users who are on the system
5 How to get help/information
6 Preview a lesson
Press HELP for information about these options, or
press SHIFT-STOP to leave.

The options on the previous display are:

Group Operations provides access to *crouter* and lets you see or change your curriculum, perform roster operations such as adding and deleting students, and monitor your students' instructional progress and performance.

Communications with other NovaNET users take place in three main ways:

- Personal Notes (pnotes) allow you to read or send private comunications directly to another user. When you have new pnotes, a message appears on the Resources display to inform you.

- General notes are used for discussion between groups of users. One user enters information in the form of a note to which other users may append responses.

- The see/talk feature permits you to consult a list of many users currently signed on to NovaNET and communicate directly with anyone on the list, exchanging typed messages that appear on the bottom of your screens. (This is called "talk" because it is instantaneous communication--as distinguished from notes, which involve some kind of delay.)

The **Help/information** option provides access to system helps and general notesfiles that contain information of use to instructors or provide access to system personnel on whom you can call when you have a problem.

The **Preview** option permits you to explore the entire NovaNET courseware catalog and try out any lesson that interests you, viewing it as a student would see it. This feature is especially helpful when you consider building your own *crouter* curriculum.

The options available under group operations are discussed in detail in Sections B and C of this manual. The remainder of this section explains how to use the communications, help/information, and lesson preview options.

CHAPTER 3: PERSONAL NOTES (PNOTES)

Personal notes (or **pnotes**) provide *electronic mail* service on the NovaNET system. Pnotes are sent directly from one user to another and can be read only by the designated recipient.

HOW TO *WRITE* A PNOTE

1. **Designate the recipient of your pnote.**

   a. On the **Resources for Instructors** display, choose option 2 (Personal Notes).

      You should see the **main Pnotes display** shown in the next figure.

   b. At the arrow, type the recipients **signon name** and press NEXT. (The arrow will move down to group automatically when you press NEXT.)

      For practice, send a pnote to yourself. Your signon name, group, and system should be given in the chapter "Sign-on Procedure" at the beginning of this manual.

   c. Type the name of the recipient's **group** and press NEXT.

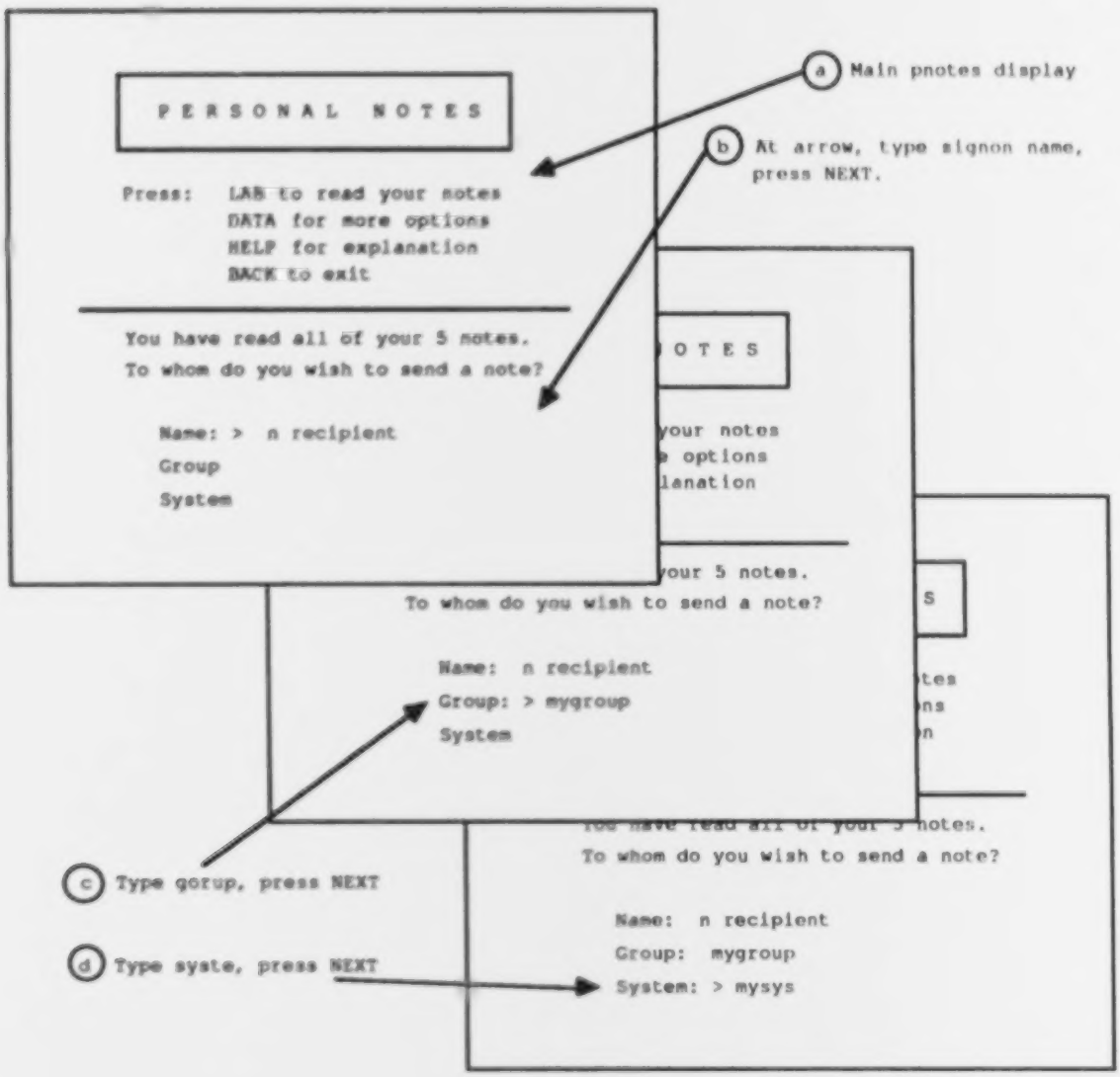
   d. Type the name of the recipient's **system** and press NEXT. (You will be taken automatically to the **pnotes editor**.)

2. **Type the text of your note at the arrow.**

   The directions at the bottom of the screen explain how to move between lines, insert additional text, and make changes. If you make a mistake while typing, press the ERASE key to erase the last character, press SHIFT-ERASE to erase a whole word.

3. **Send your pnote**

   When finished composing your note, double-check the note recipient shown at the top of the screen, and press SHIFT-NEXT to send your note (or SHIFT-BACK to start over).


a Main pnotes display
b At arrow, type signon name, press NEXT.
PERSONAL NOTES
Press: LAB to read your notes
DATA for more options
HELP for explanation
BACK to exit
You have read all of your 5 notes.
To whom do you wish to send a note?
Name: > n recipient
Group
System
To whom do you wish to send a note?
Name: n recipient
Group: > mygroup
System
To whom do you wish to send a note?
Name: n recipient
Group: mygroup
System: > mysys
c Type gorup, press NEXT
d Type syste, press NEXT

Shortcuts for Designating Pnote Recipient

The blanks on the main pnotes display are loaded with your signon name, group, and system. Therefore, when designating the recipient of a pnote, you need only type information that differs from yours.

At the arrows on the main pnotes display:

Pressing NEXT without typing anything fills that blank with your information.

Pressing SHIFT-NEXT without typing anything fills all the remaining blanks with your information.

Examples:

To send a pnote to yourself:

Type nothing.
Press SHIFT-NEXT.

To send a pnote to someone in your group:

Type the recipient's signon name.
Press SHIFT-NEXT.

To send a pnote to someone in a different group on your system:

Type signon name and press NEXT.
Type group.
Press SHIFT-NEXT.

How to Read Your Pnotes

1. **On the *Resources for Instructors* display, choose option 2 (Personal Notes).**

   Note that a message telling you that you have PERSONAL NOTES which you haven't read will appear on the *Resources for Instructors* display when you have new pnotes.

2. **If you do not have any new pnotes, press LAB on the main pnotes display to read your notes.**

   If you have new pnotes, you will not have to press LAB because you will be taken directly to your first new note.

   If you don't have new pnotes, you will have to press LAB and you will be taken to Pnote 1.

3. **While reading pnotes, use these keys to move:**

Key	Result
NEXT	Read next notes.
BACK	Read previous note.
5	Jump ahead 5 notes.
SHIFT 2	Jump ahead 12 notes
SHIFT -	Jump back to first pnote.
SHIFT +	Jump ahead to last pnote.
SHIFT-BACK	Return to main pnotes display.

How to Respond to a Pnote

1. **While reading a pnote, press SHIFT-LAB to enter the pnotes editor.**

   You respond to a pnote from a user named X, by writing a pnote back to X.

   Pressing SHIFT-LAB while reading a pnote will automatically fill in the blanks that designate X's signon name, group, and system. You will then be taken right to the editor, so you can begin typing.

2. **Follow the directions given above to enter the text of your note and send it.**

How to *Delete* Pnotes

1. **While reading a pnote, follow the directions given at the bottom of the screen:**

   a. Press SHIFT-EDIT.

   b. Then press SHIFT-HELP.

   Important: Space for pnotes is allotted to groups, not to individuals. Therefore, to preserve space in your group's file, you should delete pnotes as soon as you no longer need them.

CHAPTER 4: GENERAL NOTES

READING/WRITING/RESPONDING IN NOTESFILES

General notes are used for discussion between groups of users. One user enters information in the form of a note to which other users may append responses.

1. **To reach a general notesfile, press 3 on the *Resources for Instructors* display, then type the name of a notesfile at the arrow and press NEXT.**

   Here are the filenames of some notesfiles you might want to explore:

Filename	Description
pbnotes	Information of general interest to all NovaNET users.
announce	Announcements of changes to the system.
university	Exchange between users of computers in post-secondary academic settings.
industry	Discussions about Computer Based Instruction in industry or training.
notesfiles	A list of general interest notesfiles.

2. The notesfile *index* provides information about and access to the contents of a notesfile.

- The numbers and titles of notes are displayed in the boxed index, along with the date they were written and the number of responses other users have added.
- The index is a window that shows only the most recently written notes. To see the titles of earlier notes, press BACK one or more times, to move forward in the index, press NEXT.
- The **file policy** explains in more detail the subject of the notesfile and may offer suggestions about contents that will be deemed acceptable by the directors of the file. Press LAB to read this special note.
- To exit from a notesfile index, press SHIFT-BACK.

3. To read a note, type its number at the arrow on the index display and press NEXT.

- While reading notes, use these keys to move among notes (also called basenotes) and responses:

From a BASENOTE		From a RESPONSE	
NEXT	goes to next note	LAB	goes to next response
BACK	goes to previous note	+	goes to next response
5	goes to response 5	-	goes to previous response
SHIFT-3	goes to response 13	3	goes ahead 3 responses
LAB	goes to first response	BACK	returns to basenote

- SHIFT-BACK returns you to the index from anywhere within the file.

Hint: In order to enter a notesfile at a given note and read straight through to the end of the file, the only keypress you need to use is LAB.

4. To *write* a note: press SHIFT-LAB from the notesfile's index display.

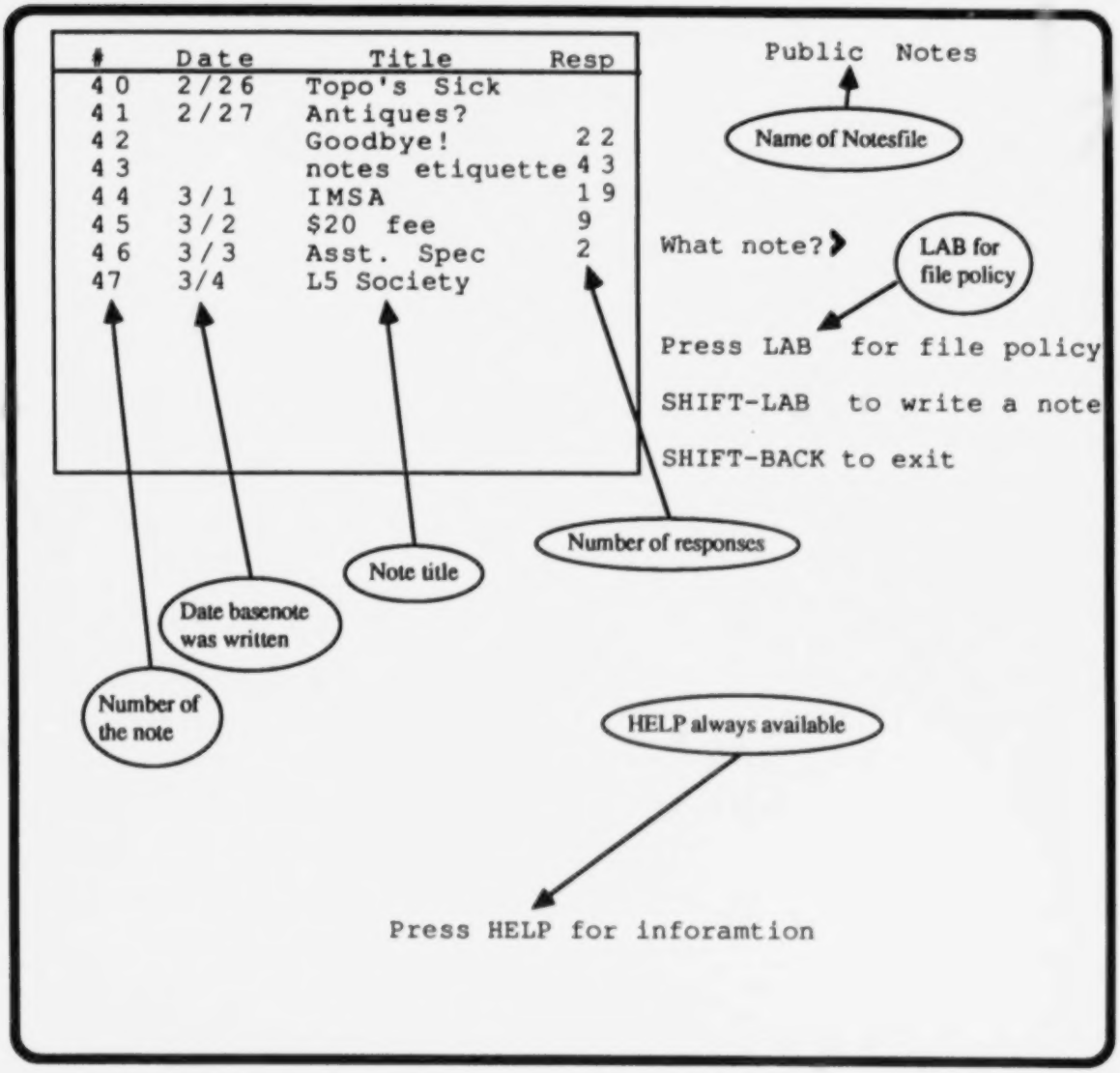
a. SHIFT-LAB takes you directly into the notes editor, which works just like the pnotes editor discussed in an earlier chapter.

b. When you have finished writing your note, press BACK.

5. To write a response, press SHIFT-LAB while reading a basenote or one of its responses.

a. SHIFT-LAB takes you directly into the notes editor, which works just like the pnotes editor discussed in an earlier chapter.

b. When you have finished writing your response, press BACK.


#
Date
Title
Resp
40
2/26
Topo's Sick
41
2/27
Antiques?
42
Goodbye!
22
43
notes etiquette
43
44
3/1
IMSA
19
45
3/2
$20 fee
9
46
3/3
Asst. Spec
2
47
3/4
L5 Society
Public Notes
Name of Notesfile
What note?
LAB for file policy
Press LAB for file policy
SHIFT-LAB to write a note
SHIFT-BACK to exit
Number of responses
Note title
Date basenote was written
Number of the note
HELP always available
Press HELP for inforamtion

6. To store your note or response, press SHIFT-NEXT to store or SHIFT-BACK to exit without storing.

After writing a **response**:

a. You will be returned to note-reading mode directly, reading your new response.

b. To return to the file index, press SHIFT-BACK.

After writing a **basenote**:

a. Follow the directions at the bottom of the screen to title your note, then press NEXT.

(A title can be up to 15 characters long--but blank spaces count as 1 character and capital letters count as 2 characters.)

b. You will be returned to note-reading mode directly, reading your new note.

c. To return to the file index, press SHIFT-BACK.

7. To change some aspect of your note or response right after you store it (before another user has added a response after yours), press SHIFT-EDIT.

As the directions at the bottom of the screen indicate, the following changes are possible:

NEXT	to change the contents of your note or response
LAB	to change the title
SHIFT-HELP	to delete your note or response

SOME TIPS ABOUT NOTE ETIQUETTE

Here are some guidelines concerning appropriate behavior in notefiles:

- Read the policy note for the file before writing in it. There may be a more appropriate file for your question or comment. If in doubt, write a pnote to the file director (the person who wrote the policy note) to ask about writing a note in the file.

- Read some of the notes already in the file, to get a feel for the types of topics covered and the general tone of the file. You may find that the topic you are interested in has already been discussed. Perhaps you can add to the discussion through a response rather than starting a new string of notes.

- Don't refer to previous notes by number. The numbers often change when inactive notes are deleted to make room for new notes. Refer instead to the date and title of a note.

- Stick to the subject of the basenote in the responses. If something in a string of notes sparks an idea that is really a separate topic, put it in a new basenote.

- Conversely, don't start a new note in response to an old one. Instead, create a response to the basenote.

- Keep your notes concise, but if you have more to say than will fit in 20 lines, just put the rest into one or more responses.

- If your comment or question is personal or not of general interest, then put it in a pnote rather than in a group file.

- Emotional tones are difficult to project in a text-only medium. Capital letters are used to indicate shouting: "I would NOT do that!" Asterisks around an emotionally descriptive word are used to indicate more subtle feelings: *sigh*, *snicker*, *smile*, etc.

NOTESFILE SEQUENCERS

Notesfiles don't have a linear structure. New information entered into a notesfile may be in the form of either a new note or a new response to an old note. Therefore, when you read a notesfile, it's impossible to tell from the index alone what new information has been entered since the last time you read it.

The **notesfile sequencer** is a tool that permits you to specify a list of notesfiles you want to read regularly. When you enter that list through the sequencer, the computer keeps track of the last time you read notes, and jumps directly to notes and responses you have not read, ignoring the others.

HOW TO SET UP YOUR NOTESFILE SEQUENCER

1. **Follow these steps to reach the *Sequencer Editor Options* Display:**

   - Press 3 on the *Resources for Instructors* display.
   - On the *Choose a notesfile display*, press LAB.
   - On the main *NOTES* display, press **f** for *Notesfile Sequencer*. (Ignore other options.)
   - You should see the *Sequencer Editor Options Display* (shown in following figure).

2. **To add files to your sequencer list:**

   a. Type a filename at the arrow and press NEXT. (In addition to the notesfiles mentioned previously, you will want to add the student notesfiles of all of your crouter groups to your sequencer list. See the chapter of this manual called "Student Notesfiles".

   b. Type another filename and press NEXT.

   Type a number to designate its position in the list and press NEXT again.

   c. Repeat the preceding step until you have added all the files you want to your list.

3. **Press SHIFT-LAB to set your Bypass Options.**

   Bypass options permit you to choose various levels of automation for the operation of your sequencer. Turning all the options on makes your sequencer as automatic as possible.

   On the Bypass Options display, press 1, 2, and 3 to turn on all of your bypass options.

   NOTE: You have to set up your sequencer only once. Whenever you wish to use it, follow the directions listed under "How to Use Your Sequencer".

```
-- Sequencer Editing Options --

Enter file name ❯

        HELP available

   SHIFT-LAB for bypass options
```

HOW TO USE YOUR SEQUENCER

1. **Follow these steps to get to your sequencer.**

   a. From the *Resources for Instructors* display, press 3 for General Notes.

   b. From the *Choose a notesfile* display, press LAB.

   c. From the main *NOTES* index, press **f** for *Notesfile Sequencer*.

   d. From the display called *Notes File Sequencer* (which displays the settings of your Bypass Options at the top of the screen), press DATA to start your sequencer.

2. **Reading notes on your sequencer:**

   - When there are no new notes or responses, a display identifying the name of the file will be presented briefly, then the sequencer will pass on to the next file in your list.

   - When there are new notes or responses, the sequencer will pause automatically. If you have already read a basenote, but have not read all of the responses, the sequencer will pause on the basenote display before taking you to the new response.

   - After reading a note or response, **press DATA to move on.**

   - Continue pressing DATA from every new basenote or response display until the sequencer has presented you with all of the new notes and responses.

   - When all of the new notes and/or responses have been presented, the sequencer will take you to the index of the notesfile in which you were reading.

   - To return to the sequencer, press SHIFT-BACK. The computer will seek the next file on your list with new notes or responses, and pause when it finds one.

   - The automatic process repeats for each notesfile in your sequencer list.

   - If you accidentally press DATA from an index and end up on the "Set to read notes" display, just press SHIFT-BACK to restart the sequencer.

   - When you have cycled through your entire list, you will be returned to the main NOTES index. Press BACK twice to return to the *Resources for Instructors* display.

HOW TO MAKE CHANGES IN YOUR SEQUENCER LIST OF FILES

1. **Follow these steps to reach the *Sequencer Editing Options* Display:**

   a. Press 3 on the *Resources for Instructors* display.

   b. On the *Choose a notefile* display, press LAB.

   c. From the main NOTES display, press LAB to reach the "Sequencer Editing Options" display.

2. **These changes are possible:**

   - To add another file to your list, type its name at the arrow, press NEXT, specify its list position, and press NEXT again to enter it in the list.
   - To change the position of a file in the list, type its name at the arrow, press NEXT, then follow the instructions and press LAB "to change position".
   - To delete a file from your list, type its name at the arrow, press NEXT, then press SHIFT-HELP to delete it.
   - When you have finished making changes, press SHIFT-STOP to return to the *Resources for Instructors* display. (From there, if you wish to enter your sequencer, follow the instructions on the previous page.)

22 See (Talk to) Other Users

1. On the *Resources for Instructors* display, press option 4, which takes you to the *Online list of users.* From that display, you may:

a. type the name of your group (or any other group) to see who else is signed on.

OR

b. press DATA to see users who may be signed on at locations near your terminal,

OR

c. press NEXT to see all users currently signed on.

CHAPTER 5: SEE (TALK TO) OTHER USERS

In addition to pnotes and general notesfiles, NovaNET communications include a feature that lets you see the signons of others currently using the system and "talk" (that is, communicate directly) with another user while both of you are signed on.

```
                Total users on system = 479


          Enter:   a physical site number,
                   a group name,
                   a user's name/group,
             or    a site-station number.


                >


Or press:  NEXT    (alone) to see all sites
           DATA    to see users at your logical site
           LAB     to display records/talk flag information

       SHIFT-DATA  to see a list of operations personnel.

                       HELP available
```

2. In order to *talk* to someone in the list, press DATA.

a. At the arrow that says *Enter name*, type the **signon name**, a **slash**, and the **group** of the person to whom you wish to speak, then press NEXT.

For example:
Enter name > sally/math

b. If that person is signed on and available for TERM-talk, you will get a message that s/he is being paged. The person who you are calling will also receive a message informing him/her that you wish to talk.

The person you are calling presses the TERM key (the shifted form of the key labeled TERM/ANS), types "talk" at the arrow, and the connection is made.

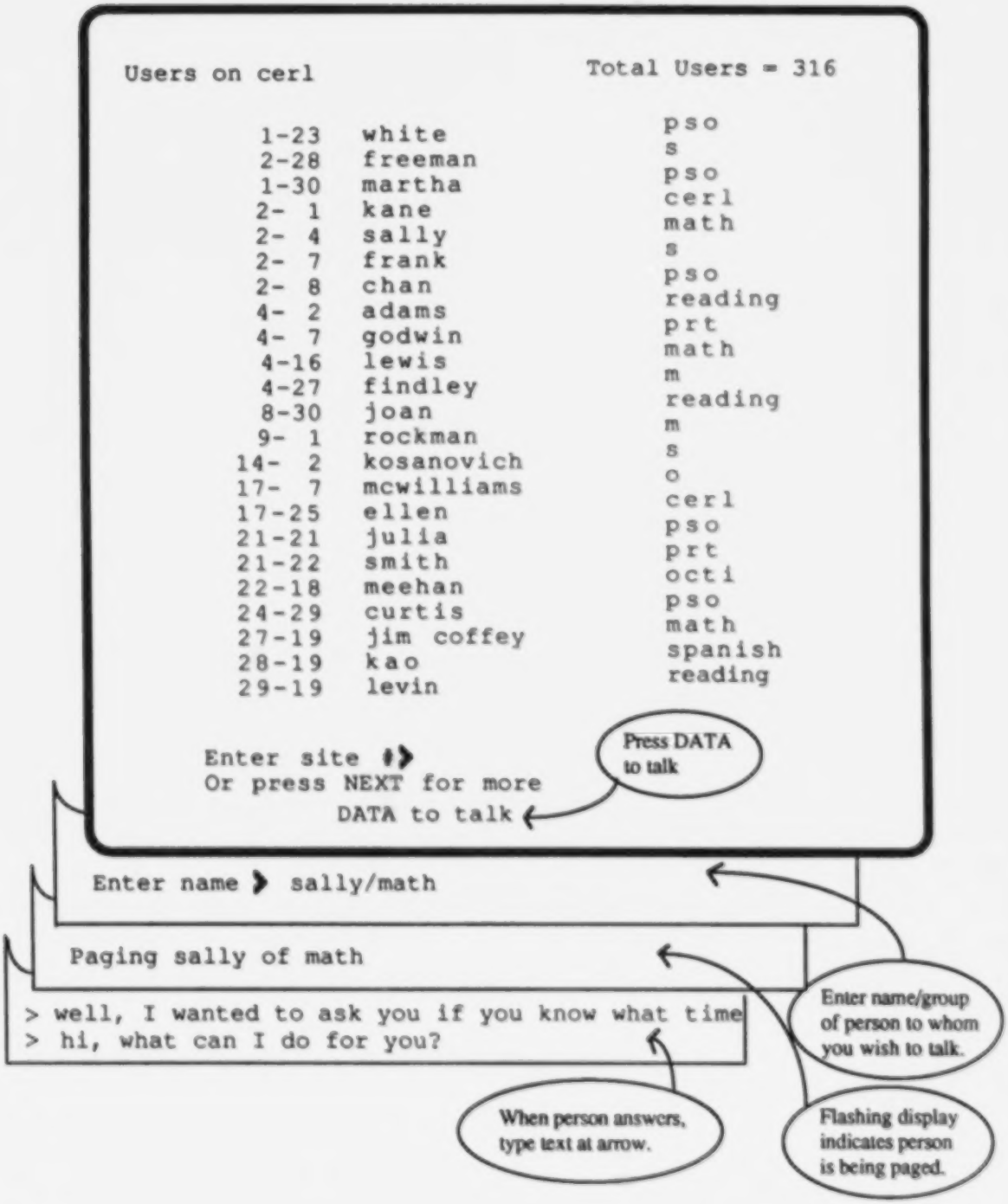
(If the person with whom you wish to communicate is busy and cannot talk, a message to that effect will appear on your screen.)

c. Two arrows appear at the bottom of your screen, as shown in the figure.

Whatever you type will appear on one line; whatever the other person types will appear on the other line. Each of you will see whatever is printed on both lines.

d. When your line is full (or at any time) you may press LAB to erase the text on your line. You can then type additional text which will start again from the first space at the left.

e. When you have finished your communication, either of you may press SHIFT-STOP to end TERM-talk. (Before pressing SHIFT-STOP, it is customary for both parties to type "bye" as a signal that the communication is complete.)


Users on cerl
Total Users = 316
1-23 white pso
2-28 freeman s
1-30 martha pso
2- 1 kane cerl
2- 4 sally math
2- 7 frank s
2- 8 chan pso
4- 2 adams reading
4- 7 godwin prt
4-16 lewis math
4-27 findley m
8-30 joan reading
9- 1 rockman m
14- 2 kosanovich s
17- 7 mcwilliams o
17-25 ellen cerl
21-21 julia pso
21-22 smith prt
22-18 meehan octi
24-29 curtis pso
27-19 jim coffey math
28-19 kao spanish
29-19 levin reading
Enter site
Or press NEXT for more
DATA to talk
Press DATA to talk
Enter name > sally/math
Paging sally of math
> well, I wanted to ask you if you know what time
> hi, what can I do for you?
Enter name/group of person to whom you wish to talk.
When person answers, type text at arrow.
Flashing display indicates person is being paged.

3. TERM-reject and TERM-busy

If someone attempts to TERM-talk you when you cannot be disturbed, press TERM (the shifted form of TERM/ANS) and type "reject" at the arrow. You may add a short message if you wish. For example:

I can't talk now but I'll call you asap.

If you know in advance that you do not want to receive TERM-talks, you can press TERM and type "busy" at the arrow, then press NEXT and continue working. If anyone tries to talk to you, they will be notified that you are not able to take TERM-talks. (To cancel this option, press TERM, type "busy", press NEXT, and then press DATA "to be available again" as the screen directions indicate.)

CHAPTER 6: HOW TO GET HELP/INFORMATION

NovaNET instructors have many resources to help solve problems and answer questions.

1. **On the *Resources for Instructors* display, choose option 5 (How to get Help/Information) for access. Then press HELP for a brief description of the function of each listed option.**

   a. Options **a** and **b** are **information** sources.

   b. The remaining options are **help** sources. Each has a specific function and is monitored by the appropriate system personnel. Each permits you to store information detailing your problem or asking your question. System staff will respond as soon as possible.

2. **For access to a listed option, press its letter.**

CHAPTER 7: PREVIEWING LESSONS

At any time, you may look at any lesson in the NovaNET lesson catalog, even lessons that are not in your crouter curriculum. This feature is especially valuable if/when you decide to build your own crouter curriculum.

1. **Choose option 6 (Preview a lesson) on the *Resources for Instructors* display.**

   Two kinds of access are available:

   a. Type the **filename** of a lesson you want to see at the arrow, then press NEXT.

   Or, if you don't know the filename,

   b. Press LAB to see the NovaNET **courseware catalog**, from which you can choose lessons by **author**, **title**, or **subject**.

   Unless you know the name of an author whose lessons you want to see, or the exact title of a lesson, it is best to search the catalog by subjects.

   - To "try" the lesson, press LAB from the lesson's basic catalog entry.

   When you have located a lesson of interest, the basic entry (see next figure) in the catalog provides the author's name, copyright date, a short summary of the lesson's contents, additional information about the authors and the instructional context of the lesson (grade level for which it is intended, prerequisites, etc.).

   From the basic entry, you can "try" the lesson (preview it, seeing it as a student would see it) by pressing LAB. The basic entry for the lesson also lists the filename of the lesson. It is a good idea to jot down the filenames of lessons you like, so that in the future you can enter them directly.

Shear Force and Bending Moment Diagrams

By: Helen Kuznetsov
Computer-based Educ. Res. Lab., U of I, Urbana

COPYRIGHT DATA: 1985,86 FILENAME: beams1

This lesson deals with shear force and bending moments diagrams for beams loaded with uniformly distributed loads and concentrated forces. The user will learn how to write expressions for shear force (V) and bending moment (M) in a beam, and how to determine largest values of V and M for a given beam loading. Practice problems are included.

(a) Further Information (b) Authors
(d) Support Credit

Press the letter of the option you wish to select.

>

LAB to try
SHIFT-NEXT/SHIFT-BACK to move BACK to exit

Section B

Delivering Instruction with *crouter*

CHAPTER 1: INTRODUCTION

Computers are useful not only for delivering instruction but also for managing instruction. Using computers to deliver instruction is called Computer Assisted Instruction (CAI). A CAI lesson is an interactive and individualized way to teach students via a computer. Using computers to manage instruction is called Computer Managed Instruction (CMI). CMI includes organizing and presenting students with a list of lessons, administering tests to students, storing data about the students' performance, and preparing performance reports for the instructor.

There are several advantages to using a CMI system. First, since the computer has the capability of storing a great deal of information about the student's performance, the computer can individualize the instruction to better meet a particular student's needs. Second, since the computer will be monitoring the student's progress, the teacher spends less time doing routine management duties. This means that more of the teacher's time can be spent delivering instruction in a face-to-face environment. Finally, since a computer can keep track of a large amount of detailed information, the computer can handle much more complex management schemes than would be possible by a human teacher.

This section describes the *crouter* package which is a general purpose tool for managing instruction on the NovaNET computer.

***Crouter* was designed to be:**

1) general purpose
   (meet most of the needs, of most of the users, most of the time),
2) simple to use,
3) and as flexible and powerful as possible given the restraints of #1 and #2.
   (In other words, *crouter* should allow users to do as much as possible as long as *crouter* remains general purpose and simple to use.)

A *crouter* curriculum is basically a list of lessons and it can contain:

- about 4000 lessons
- displays with simple graphics such as lines, circles, boxes, vectors, arcs, and sized and rotated text
- several different ways of organizing and sequencing displays
- sophisticated criteria for determining completion and progression

The student performance data which is saved by *crouter* includes:

- score for each lesson
- completion data for each lesson
- amount of time spent in lesson before lesson completed
- amount of time spent in lesson after lesson completed (review time)
- number of tries in lesson
- last date spent in lesson
- 1 extra word of "status" for every lesson entered (status is a computer word where programmers can store extra information)

CHAPTER 2: CREATING YOUR FILES

The following files must be created before you can use a *crouter* group.

Group (required)
Curriculum File (required)
Student Data File (optional)

This chapter describes the purpose of each file and how to create the files.

CREATING YOUR GROUP

All NovaNET users have a signon. The signon identifies themselves to the computer. All signons belong to a group.

A group should contain users who all use the computer for the same purpose. For example: you may have one group for students and instructors in a first year Spanish class and another group for students and instructors in second year Spanish class.

It is often more useful to have many small groups rather than fewer larger groups. This is because managing instruction is easier if an instructor has to look at student data for a smaller group of students.

Since it is often more useful to have smaller computer groups, one student may have more than one computer signon. For example, one student may be registered in both a Spanish group and a Math group.

One person is assigned to be the director of each group. The group director establishes codewords which protect the group, and the group director may share these codewords with other responsible users if s/he chooses. Since the information in a group (or any other computer file) can be very private and very important, it is necessary to be very selective and careful about distributing codewords.

The group director is responsible for the behavior of members of the group. The group director must be sure that the members of his/her group know how to sign on, know where to get copies of the manual, know how to use the on-line resources, and understand the rules and courtesies of computer use.

To use *crouter*, you must create a **group**. To create a group:

1. **Ask your account director to create a "Crouter group" for you.**

   If you do not know who your account director is, ask the person who gave you your signon.

   You will need to tell your account director:

   a. the maximum **number of students** who will be enrolled in your group

   b. a **name** for your group.

   c. a **READ** records codeword (A codeword for users who are allowed to look at the group but not allowed to change the group.) This should be a codeword that you can type as opposed to a group or account coded codeword. In other words, you should see a row of *'s for the codeword.

   d. a **WRITE** records codeword (A codeword for users who are allowed to change the group.) This should be a codeword that you can type as opposed to a group or account coded codeword. In other words, you should see a row of *'s for the codeword.

   Your account director should be sure to create a "Crouter group" as opposed to a normal group. (If you have already created a nomral group, then use the information in the appendix of this document to set up this normal group so that it can operate as a "Crouter group".)

2. **If you do not already have a signon, ask your account director to create an instructor signon in the group for you to use.**

CREATING YOUR CURRICULUM FILE

Every *crouter* group must have a curriculum file. The curriculum file contains the list of lessons that you want your students to study. If you want to use a curriculum file that already exists, don't create this file.

To create a curriculum file:

1. **Determine the maximum number of modules (or displays).**

   To determine this number, use the chapter of this manual "Structure of Curriculum".

2. **Ask your account director to create a "Crouter curriculum file" and set some codewords for that file.**

   You will need to tell your account director:

   a. The **name of your group**. Your curriculum file will be called "c1groupname". For example, if your group name is "french", your curriculum file will be "c1french". (If you prefer, you can select an arbitrary name for your curriculum file, but then the system will not remember that this file is a "Crouter curriculum file" which may make it more difficult for you to make changes later on.)

   b. The maximum **number of modules** (or displays).

   c. A **READ records codeword** (A codeword for users who can use your curriculum but who cannot change your curriculum.) This should be a codeword that you can type as opposed to a group or account coded codeword. In other words, you should see a row of *'s for the codeword.

   d. A **WRITE records codeword** (A codeword for users who can change your curriculum.) This should be a codeword that you can type as opposed to a group or account coded codeword. In other words, you should see a row of *'s for the codeword.

If your curriculum file fills up, you may have your account director lengthen it at any time.

A "Crouter curriculum file" is really a file type called a nameset. However, it is simpler to have your account director create a "Crouter curriculum file" as opposed to a nameset. If you have already created a nameset, you can use the information in the appendix of this manual to set up the nameset so that it can be used as a "Crouter curriculum file".

CREATING YOUR STUDENT DATA FILE

The student data file is the file where your student's performance data is saved. (Student perfomance data includes scores on lessons, times in lessons, lesson completed information, etc.) If you want student perfomance data saved, then you must have a student data file. If you do not want to save student performance data, then it is not necessary to create a student data file.

It is best to use one student data file for each group. However, it is possible to share one student data file among several different groups, as long as each group also uses the same curriculum. Although this is possible, it is not encouraged because sharing a student data file among several groups will make it more difficult to look at student data for just one group of students.

To create a student data file:

1. **Determine the maximum number of students.**

2. **Determine the average number of lessons that each student will study.**

3. **Ask your account director to create a "Crouter student data file" and set some codewords for that file.**

   You will need to tell your account director:

   a. The **name of your group**. Your student data file will be called "d1groupname". For example, if your group name is "french", your student data file will be "d1french". (If you prefer, you can select an arbitrary name for your student data file, but then the system will not remember that this file is a "Crouter student data file" which may make it more difficult for you to make changes later on.)

   b. The maximum number of students.

   c. The average number of lessons that each student will study.

   d. A **READ records codeword** (A codeword for users who can look at your student data but who cannot change your student data.) This should be a codeword that you can type as opposed to a group or account coded codeword. In other words, you should see a row of *'s for the codeword.

   e. A **WRITE records codeword** (A codeword for users who can change your student data.) This should be a codeword that you can type as opposed to a group or account coded codeword. In other words, you should see a row of *'s for the codeword.

You will receive warnings in your student notes file when the student data file becomes 80% full, 90% full, and 100% full. If you see those warnings, you can ask your account director to lengthen the student data file. (More information about student notes files is included in the chapter of this manual titled "Student notes files".)

A "Crouter student data file" is really a file type called a nameset. However, it is simpler to have your account director create a "Crouter student data file" as opposed to a nameset. If you have already created a nameset, you can use the information in the appendix of this manual to set up the nameset so that it can be used as a "Crouter student data file".

CHAPTER 3: STRUCTURE OF A CURRICULUM

A curriculum is basically a list of lessons which is organized into displays or units called modules. This chapter gives an overview of different ways to organize a curriculum. The section "Building a *crouter* curriculum" describes how to enter the curriculum into the computer and gives much more specific information about *crouter* capabilities.

The first step for building a curriculum is to determine which computer lessons and which computer tests you would like your students to study. The list of lessons should include both the file title and the filename. The file title is similar to the title of a book, for example "HELP lesson for using CROUTER". The filename is a unique name with 10 or fewer characters that the computer uses to reference the lesson, for example "currhelp". You can find both the file title and the filename in the Catalog of Available Lessons. (To see this catalog, if you have an author signon type "C" (SHIFTed) on the AUTHOR MODE display, or if you have an instructor signon choose the option "Choose a lesson to study" and press LAB for the catalog.)

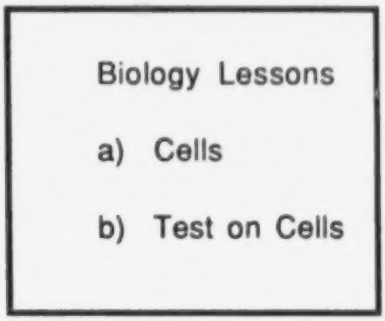
In addition to including lessons in your curriculum, you can also include off-line assignments. An off-line assignment is something which is not done on the computer. For example, you may want to assign a test on paper or a chapter in a book. One advantage of using off-line assignments is that you can have the computer assign both assignments which are off the computer as well as assignments which are on the computer. You can mark off-line assignments as being "completed" or enter a score for an off-line assignment. Therefore, another advantage of using off-line assignments is to have all of the student's performance data in one location.

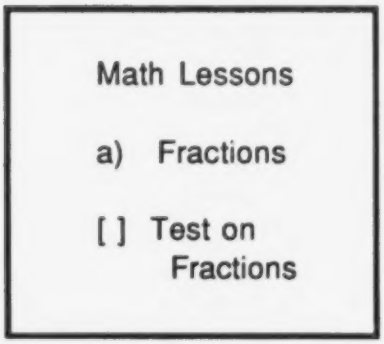
Once you have decided which assignments (lessons, tests, and off-line assignments) should be included in your curriculum, you must organize the list of assignments. For example, the assignments can be organized according to subject matter or according to the order in which you want your students to study the assignments.

The assignments are displayed to the student in a series of computer displays. Each display is called a module. The contents of a module will depend on how you have organized your list of assignments. A module can contain no more than 26 lines.

Structured Curricula

Suppose you want your students to do two Biology assignments and two Math assignments. You could organize your curriculum into the following two modules. Each box represents a separate module.



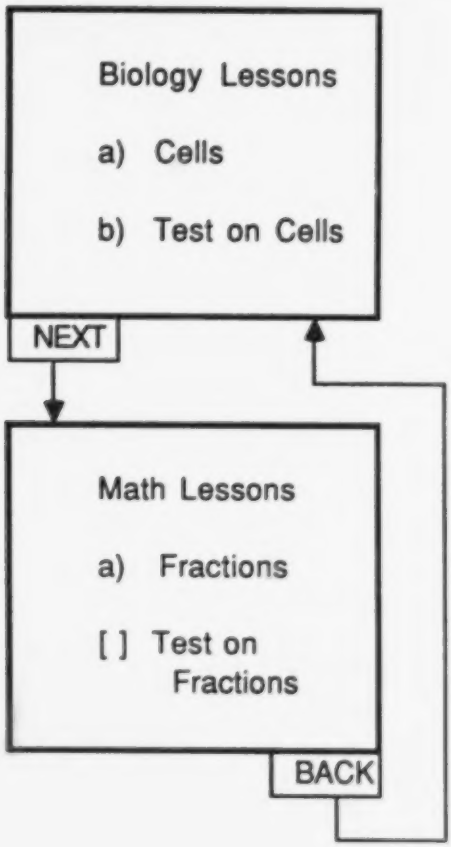


In the Biology module, the student would type "a" to study the lesson on Cells and "b" to take a test on Cells.

The Math module contains one lesson and one off-line assignment. To see the lesson on Fractions, the student would type "a". The Fractions Test has the symbols [ ] instead of a letter since the Fractions Test is an off-line assignment.

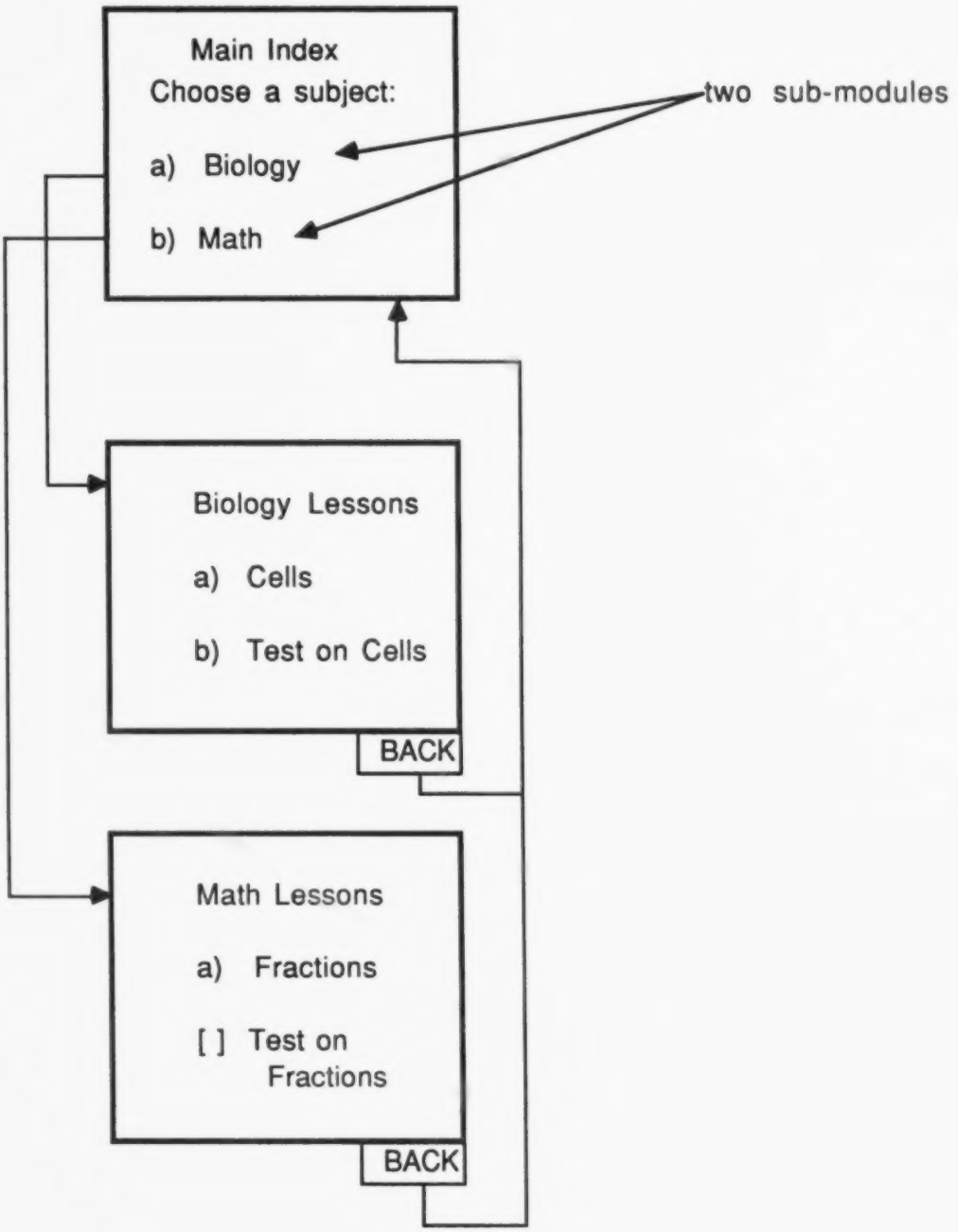
There are two ways for the students to progress between modules. The first, and simplest way would be for all students to first see the biology module. The students could then press NEXT and move from the biology module to the Math module. Pressing BACK from the Math module would return the students to the Biology module.

This method is called "structured" because all of the students are forced to follow the same structure. This method is illustrated below.



Browsing Curricula

The second way to progress between modules is the "browsing" method. This method allows students to choose which module they will see next. In the "browsing" method, an index module is used which lists the other modules as sub-modules. The following illustration is an example of a "browsing" curriculum.



In this example, if the student is in the Main Index module and presses "a", the student will be taken to the Biology module. Likewise, if the student is in the Main Index module and presses "b", the student will be taken to the Math module.

If the student presses BACK from either the Biology module or the Math module, the student will be returned to the Main Index module.

Types of Module Displays

There are three different ways for the module display to be presented to the student. These types are summarized below and more information is available in the section of this manual titled "Building a *crouter* curriculum".

INDEX Modules
This is the most common type of module. The student always sees all of the module display and can choose any lesson or sub-module listed in the current module.

SEQUENCE Modules
The student never sees a module display and is sent directly to the next lesson or sub-module as soon as the current lesson or sub-module is completed.

SEQUENCE WITH REVIEW Modules
The student can choose either the next lesson or sub-module, or any of the lessons or sub-modules which have already been studied. The student only sees the lines in the module that include and precede the next item to study. In other words, the student will not be able to see or study any **new** lesson or sub-module except the very next one listed in the module. At any time, the student can review any lessons or sub-modules which s/he has already seen.

Customizing your Curriculum

It is also possible to customize any curriculum to meet individual student needs. For example, you can have different students start with different modules. You can also send students to different modules or different lessons depending on their performance. The following display indicates the type of performance data which can be used to determine which module or which lesson the student will see next. (More information is provided in the section of this manual titled "Building a *crouter* curriculum".)

Types of condition:	Examples:
date	If: date > 2/15/85
time	If: time(for lesson) < 50 If: time(for module)≥120 If: time for session≥34 If: time on system < 130 If: time≥3:30
tries	If: tries(for lesson)≥3 If: tries(for module) < 9 (tries for module means the number of times that the module was accessed from another module or from signing on)
score	If: score(for lesson)≥80
done	If: done(lesson) If: done(module) (a module is done if the student exited the module by pressing NEXT)
group	If: group = pso

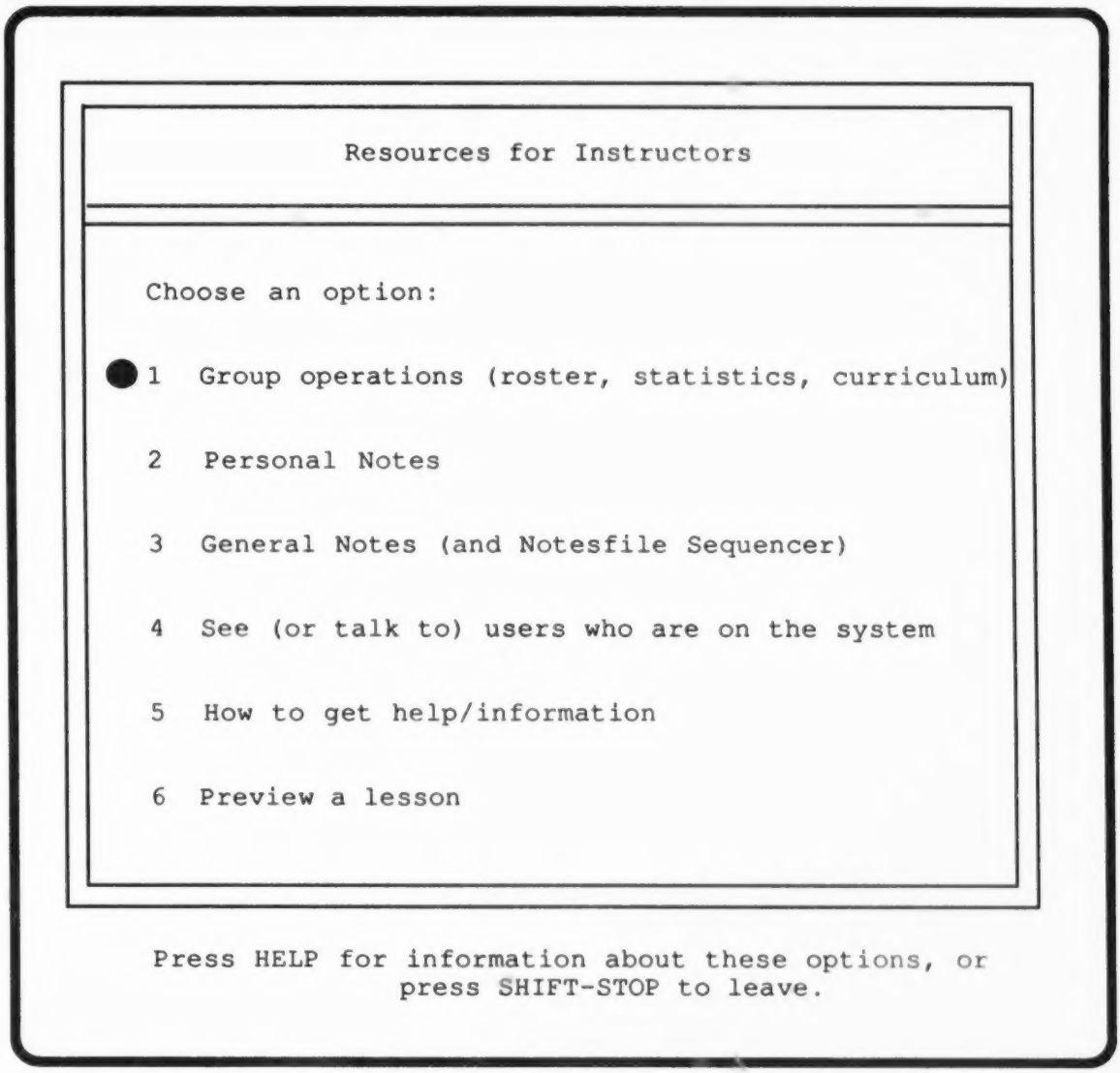
Chapter 4: See Curriculum

This chapter describes how an instructor can see a curriculum like the student sees the curriculum. Your group and curriculum must be created before you can use this option. To create a group, see the chapter of this manual titled "Creating Your Files". To create a new curriculum, see the section of this manual titled "Building a *crouter* curriculum".

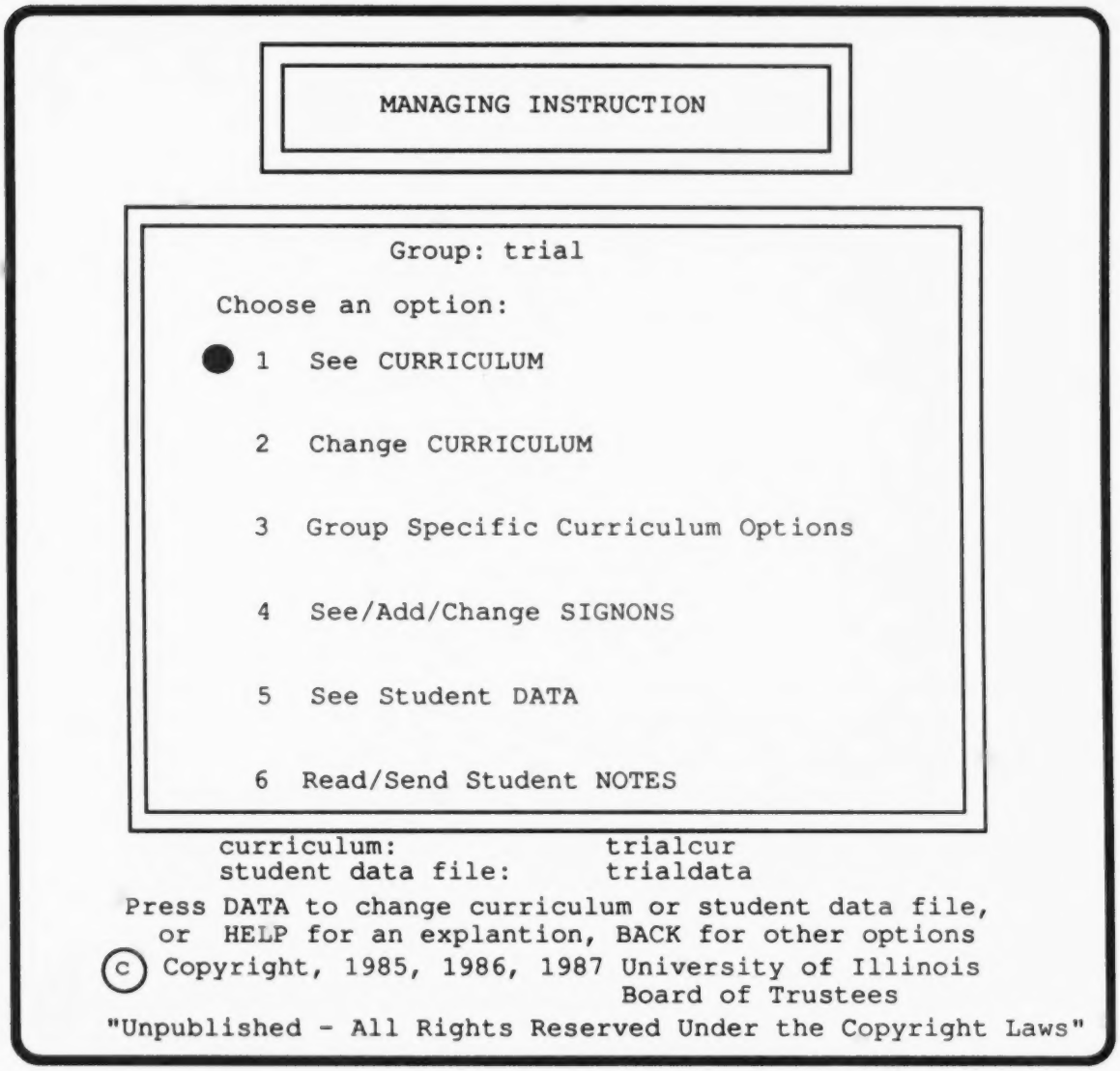
46 See Curriculum

Only instructors, students, and multiples can see a curriculum. (Authors must create themselves an instructor, student, or multiple signon in order to see the curriculum.)

Instructors see the following display for their main index and should choose option 1 (Group Operations) in order to see a curriculum. Press NEXT to work with the group in which your signon belongs, or press LAB and enter the name and codeword of a different group.


Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
3 General Notes (and Notesfile Sequencer)
4 See (or talk to) users who are on the system
5 How to get help/information
6 Preview a lesson
Press HELP for information about these options, or
press SHIFT-STOP to leave.

Next, choose option 1 (See Curriculum) to see the curriculum. This option will allow you to study all of the lessons in the curriculum.


MANAGING INSTRUCTION
Group: trial
Choose an option:
1 See CURRICULUM
2 Change CURRICULUM
3 Group Specific Curriculum Options
4 See/Add/Change SIGNONS
5 See Student DATA
6 Read/Send Student NOTES
curriculum: trialcur
student data file: trialdata
Press DATA to change curriculum or student data file,
or HELP for an explantion, BACK for other options
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Board of Trustees
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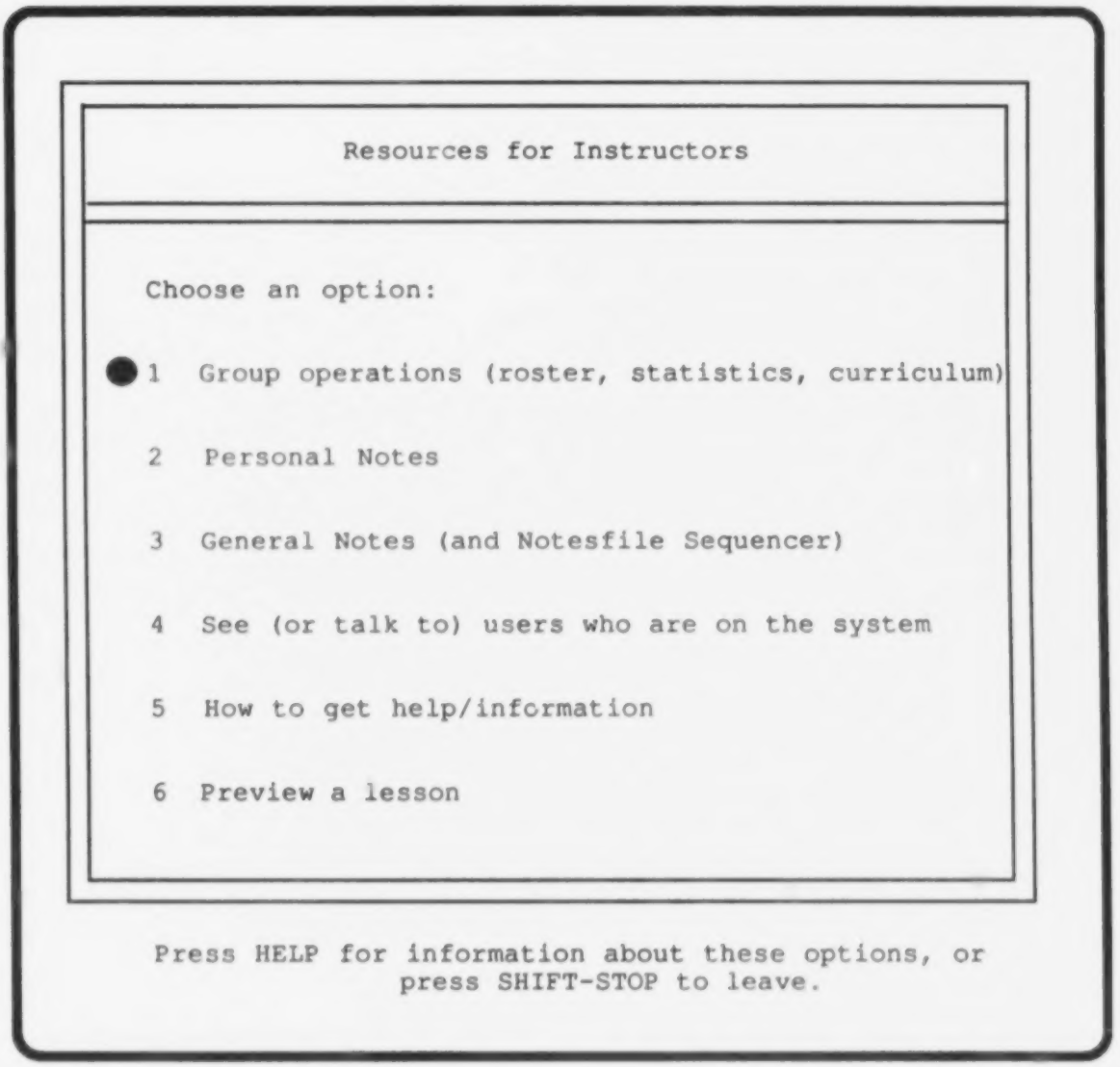
This will take you to the module displays that the student sees. You can then study any of the lessons in the curriculum or branch around to other modules. To leave the curriculum and return to the normal instructor options, press SHIFT-ERASE.

CHAPTER 5: GROUP SPECIFIC CURRICULUM OPTIONS

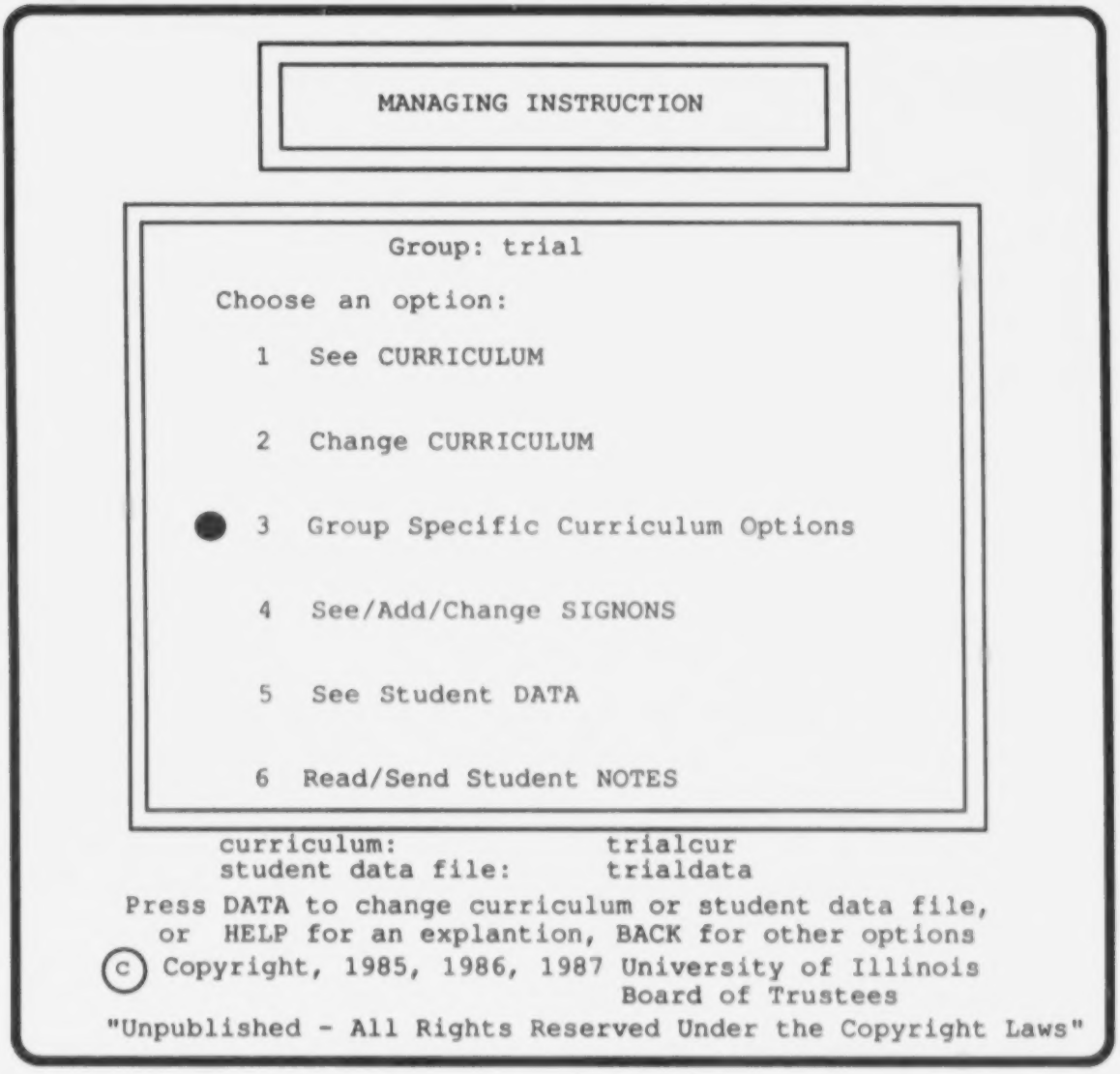
Group specific curriculum options allow you to set options which pertain only to your group. These options are useful if you are sharing a curriculum among several groups. Your group must be created and all connections made before you specify group specific curriculum options. To create a group and make the connections, see the chapter of this manual titled "Creating Your Files".

Instructors see the following display for their main index. To set some information specific for your group, choose option 1 (Group Operations). Press NEXT to work with the group in which your signon belongs, or press LAB and enter the name and codeword of a different group.


Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
3 General Notes (and Notesfile Sequencer)
4 See (or talk to) users who are on the system
5 How to get help/information
6 Preview a lesson
Press HELP for information about these options, or
press SHIFT-STOP to leave.

Authors should enter their group by typing *crouter* on the author mode display and entering the name and codeword for their group.

Both authors and instructors see the following display when working with their group. Choose option 3 (Group Specific Curriculum Options) to set some information specific for your group.


MANAGING INSTRUCTION
Group: trial
Choose an option:
1 See CURRICULUM
2 Change CURRICULUM
3 Group Specific Curriculum Options
4 See/Add/Change SIGNONS
5 See Student DATA
6 Read/Send Student NOTES
curriculum: trialcur
student data file: trialdata
Press DATA to change curriculum or student data file,
or HELP for an explantion, BACK for other options
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"Unpublished - All Rights Reserved Under the Copyright Laws"

There are four group specific curriculum options:

1) Initial Module

The initial module option allows you to specify a module that students in this group will enter the first time they sign on. This setting overrides the "initial module" in the curriculum. This is useful if you want to share one curriculum between several different groups with each group starting with a different module.

2) Start every session with Initial Module

Normally, when the student signs on, the student returns to the last module s/he saw. However, if you choose this option, the students will start every session with the Initial Module. If you choose to start every session with the initial module and later decide to resume starting each session with the last module, you can choose this option again to return to the normal situation.

3) Initial Lesson

This option allows you to specify a lesson that students in this group will enter every time they sign on. When the students complete this lesson (by executing a -lesson completed-), they will be sent to the current module. If the students leave the initial lesson without completing it (without executing a -lesson completed-), then the students will be signed off the computer. Student data is not saved for the initial lesson.

4) Exit Lesson

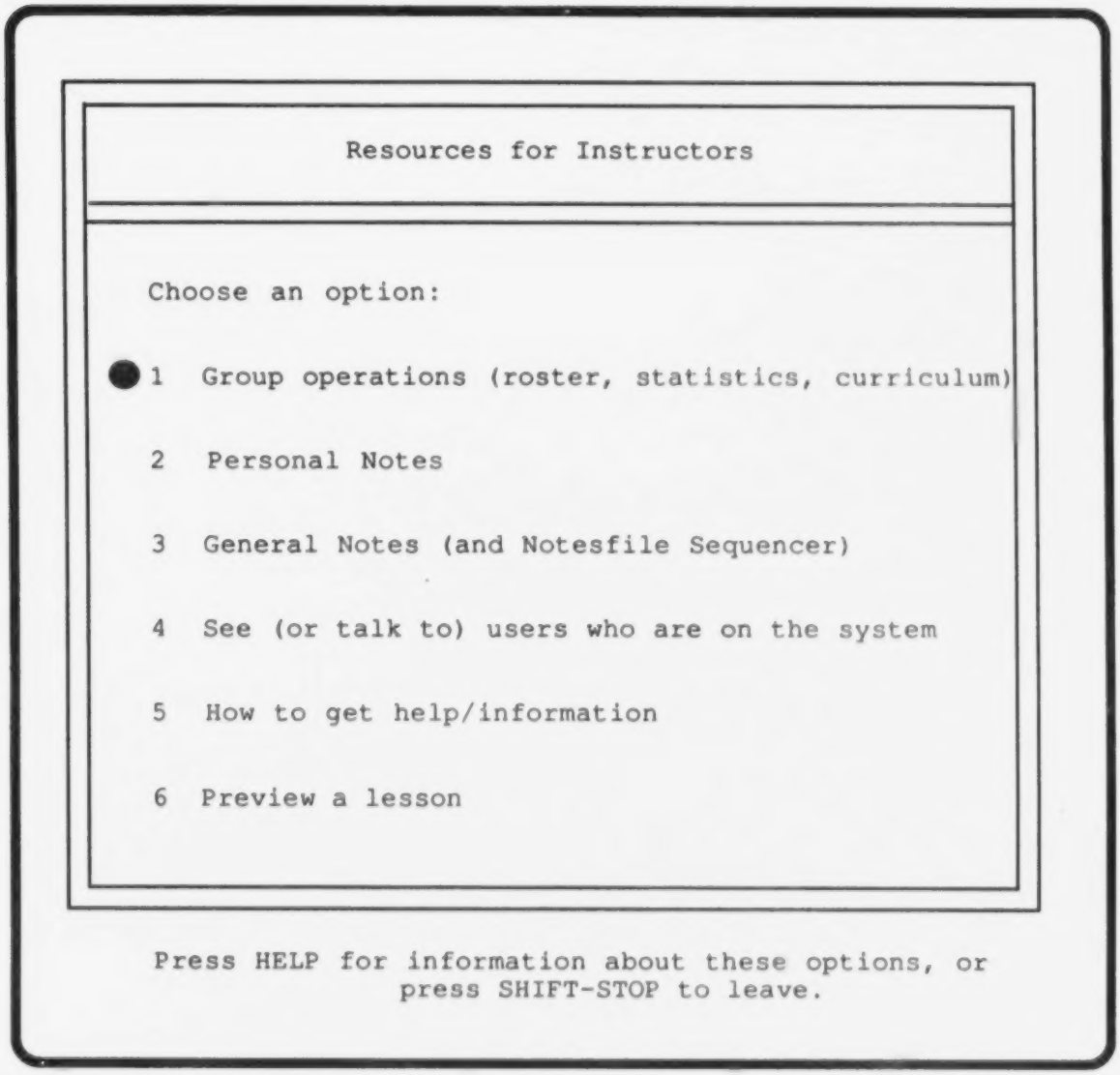
When the students leave a lesson, they will execute the exit lesson before returning to the router. If the student completes the exit lesson (executes a -lesson completed-), s/he will be sent to the current module. If the student doesn't complete the exit lesson (doesn't execute a -lesson completed-), then the student will be signed off of the computer. Student data is not saved for the exit lesson.

CHAPTER 6 SEE/ADD/CHANGE SIGNONS

ADD SIGNONS

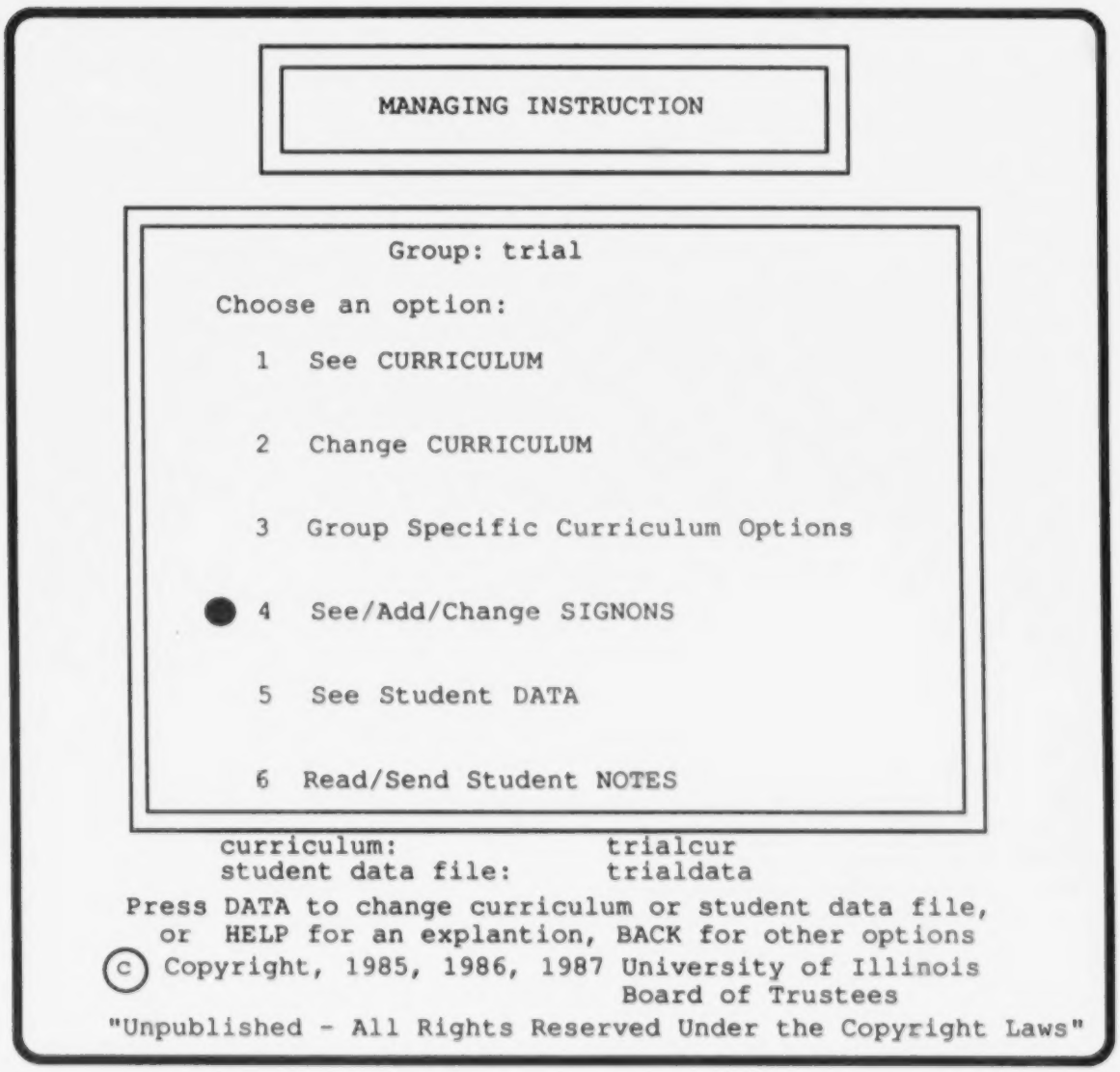
This option allows you to create new signons. Your group must be created and all of the connections made before you can add signons. To create a group and make the connections, see the chapter of this manual titled "Creating Your Files".

Instructors see the following display for their main index. To add signons, choose option 1 (Group Operations). Press NEXT to work with the group in which your signon belongs, or press LAB and enter the name and codeword of a different group.


Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
3 General Notes (and Notesfile Sequencer)
4 See (or talk to) users who are on the system
5 How to get help/information
6 Preview a lesson
Press HELP for information about these options, or
press SHIFT-STOP to leave.

Authors should enter their group by typing *crouter* on the author mode display and then entering the name and codeword for their group.

Both authors and instructors see the following display when working with their groups. Choose option 4 (See/Add/Change SIGNONS) to add signons to the group.


MANAGING INSTRUCTION
Group: trial
Choose an option:
1 See CURRICULUM
2 Change CURRICULUM
3 Group Specific Curriculum Options
4 See/Add/Change SIGNONS
5 See Student DATA
6 Read/Send Student NOTES
curriculum: trialcur
student data file: trialdata
Press DATA to change curriculum or student data file,
or HELP for an explantion, BACK for other options
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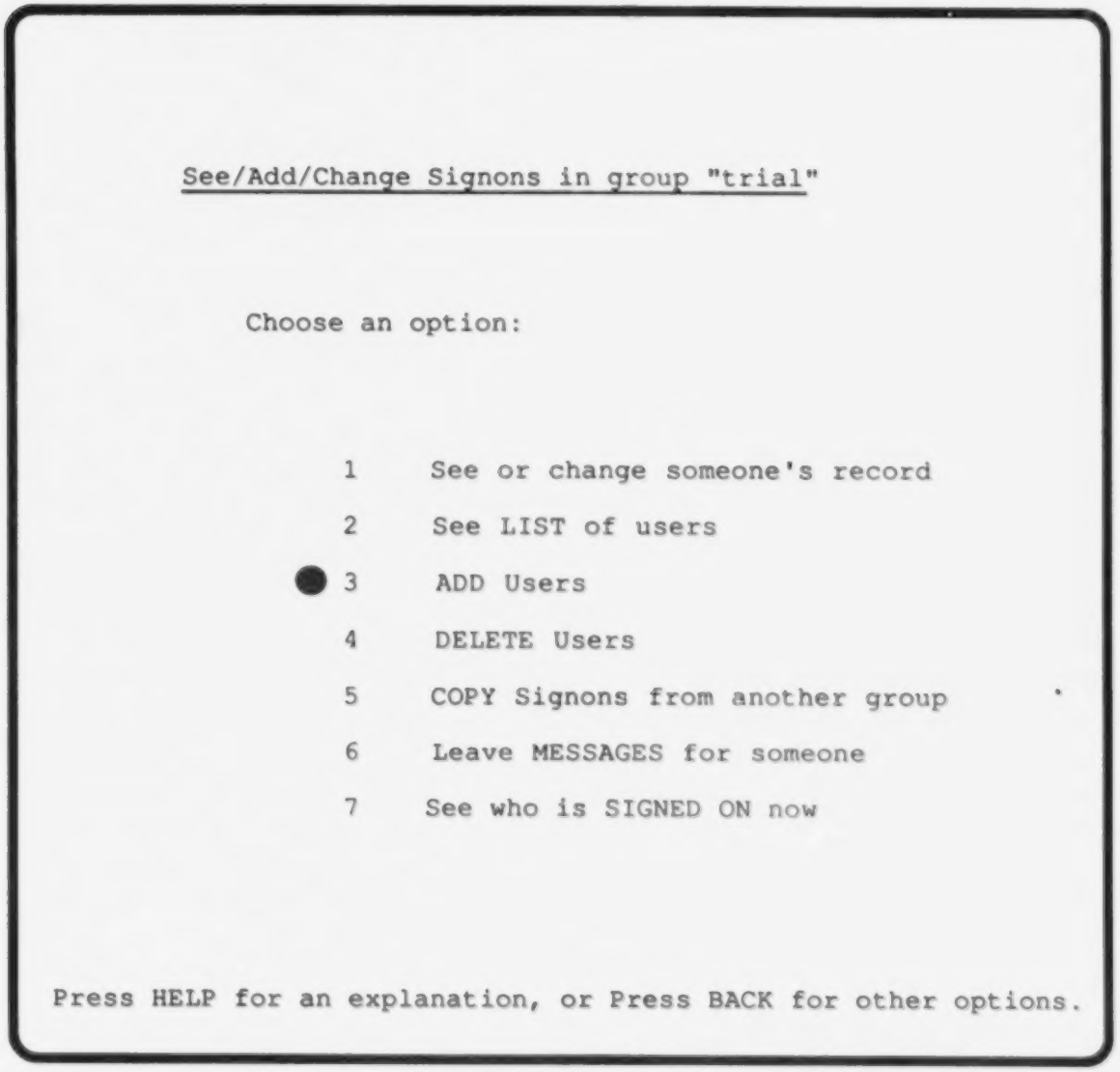
The following display is the next index seen by both authors and instructors. Choose option 3 (ADD Users) to add signons to your group.


See/Add/Change Signons in group "trial"
Choose an option:
1 See or change someone's record
2 See LIST of users
3 ADD Users
4 DELETE Users
5 COPY Signons from another group
6 Leave MESSAGES for someone
7 See who is SIGNED ON now
Press HELP for an explanation, or Press BACK for other options.

When you add a signon, you will have to choose a type of user. A group may contain four different types of computer users:

1) students

Students study lessons which have been assigned by their instructors. Data about the student's progress is saved and includes: lesson score, time in lesson, lesson completion, number of times in lesson, and last date in a lesson.

2) instructors

All instructors can monitor the progress of students in their own group and try out the curriculum as a student would see it. (An instructor's "own" group is the group in which his/her current signon was created. Instructors have special privileges in their own group, but do not have such privileges in other groups). Only instructors with "Edit access" to their own group can create, change, and delete users in their own group. When an instructor signon is created, it is set so that it can only "Inspect" the group. If you want the instructor to have "Edit access" so that s/he can create, change or delete signons, then you need to press DATA after creating the signon. After you press DATA, you will be looking at the instructor's record (see following display). Use option 4 to change the "edit access" to either ALLOWED or NOT ALLOWED.

```
"davis"  (instructor)                              lesson:
                                                     unit:

Created:    12/14/86
Last on:    Date:   12/31/86   time:   11:32   station:   7-21
Time on:    hours:      2.6    days:      6   sessions:      9
Resources:  CPU usage (TIPS)  .9   Disk accesses (DAPM)  3.1
Signon password:  XXXXXXXXXX


 Choose an option:

       1  change PASSWORD

       2  change spelling of NAME

       3  leave a MESSAGE

       4  edit group "trial" NOT ALLOWED



     Press SHIFT-HELP for:  delete, turn-off

     Press SHIFT-NEXT for next person in roster
           SHIFT-BACK for previous person in roster
                 BACK for other options
```

An instructors can work in a group in which s/he doesn't have a signon, provided the instructor knows some codewords. This instructor will be able to create, change, or delete signons if s/he knows the WRITE records codeword to the group. Those instructors who only know the READ records codeword can look at the information in the group but cannot change the information. Instructors who know neither the WRITE records nor READ records codeword will not be able to see any information about the group.

Only instructors who know the WRITE records codeword for the curriculum will be allowed to assign lessons by creating a curriculum.

3) multiples

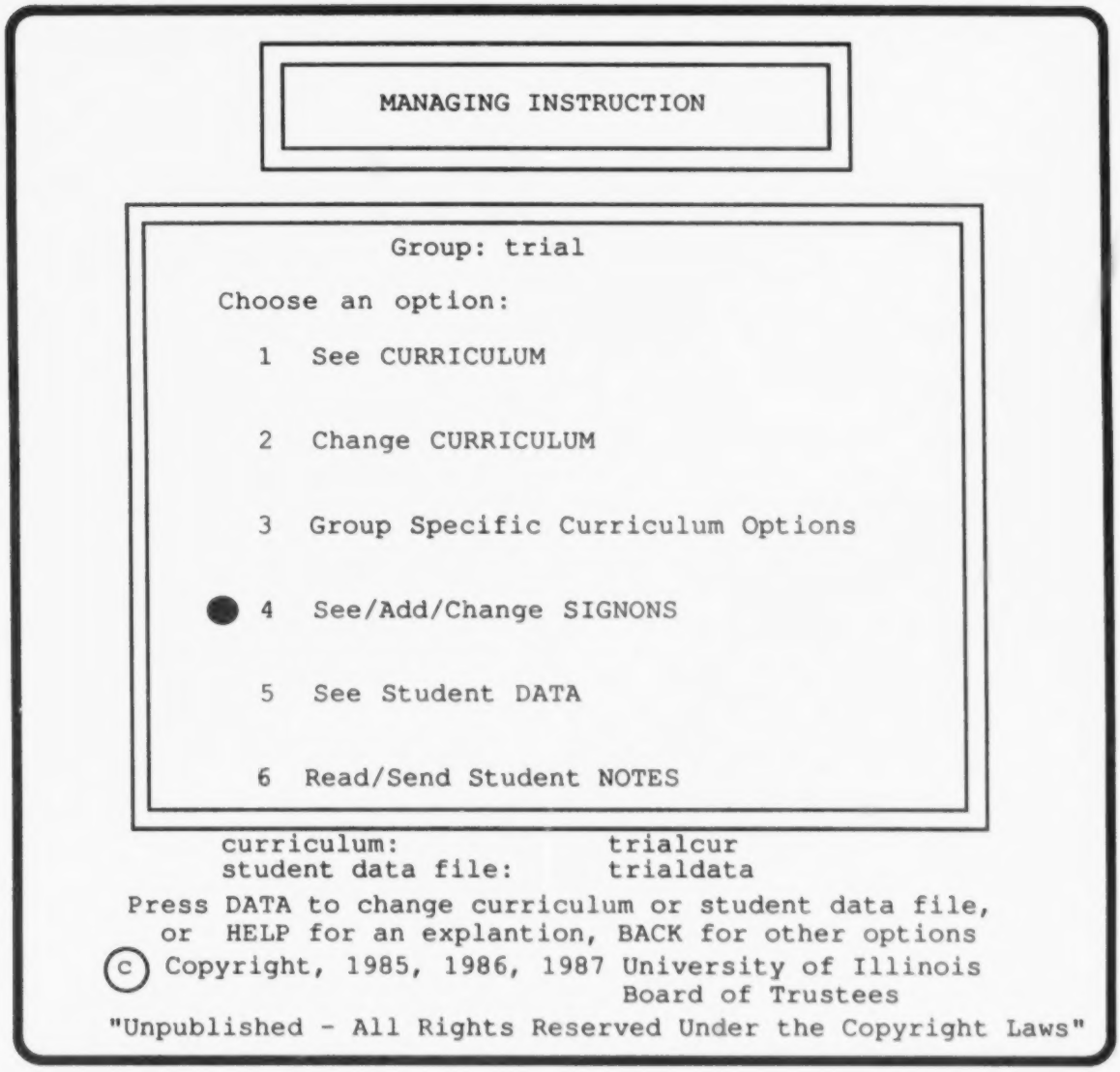
Multiples are like students except that more than one person can use the signon at the same time and data about their progress is not saved.

4) authors

Authors will be able to create, change, or delete signons if they know the WRITE records codeword to the group. Authors who know the READ records codeword can look at the information in the group but cannot change the information. Authors who know neither the WRITE records nor READ records codeword will not be able to see any information about the group. Likewise, authors will be able to change the curriculum if they know the WRITE records codeword for the curriculum. In addition, an author can program lessons. Some groups don't allow author signons. Your account director can change your group to allow or not allow author signons.

CHANGE EXISTING SIGNONS

This option allows you to change information which is associated with an existing signon. To change an existing signon, choose option 4 (See/Add/Change SIGNONS).


MANAGING INSTRUCTION
Group: trial
Choose an option:
1 See CURRICULUM
2 Change CURRICULUM
3 Group Specific Curriculum Options
4 See/Add/Change SIGNONS
5 See Student DATA
6 Read/Send Student NOTES
curriculum: trialcur
student data file: trialdata
Press DATA to change curriculum or student data file,
or HELP for an explantion, BACK for other options
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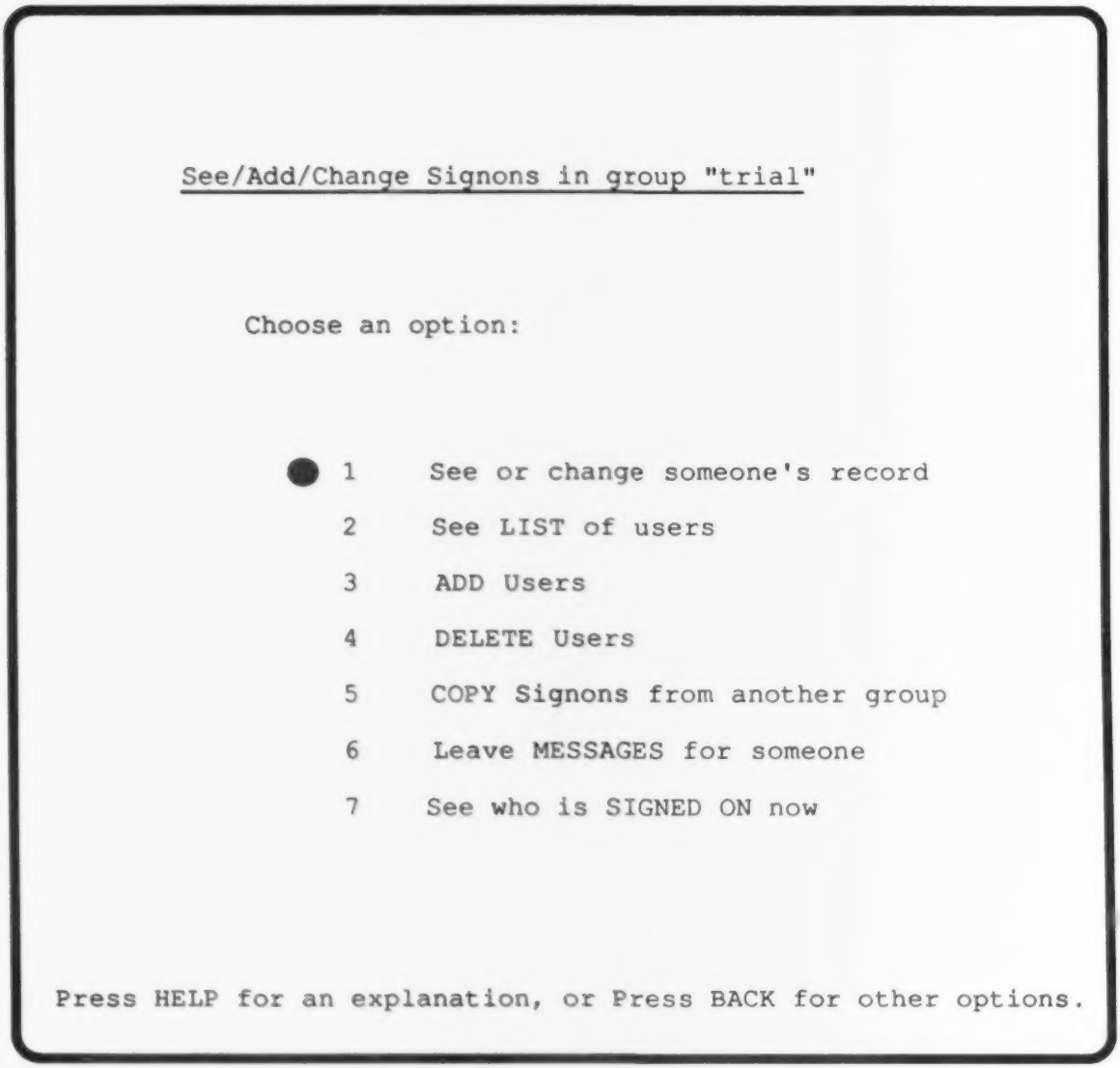
Next, choose option 1 (See or change someone's record).


See/Add/Change Signons in group "trial"
Choose an option:
1 See or change someone's record
2 See LIST of users
3 ADD Users
4 DELETE Users
5 COPY Signons from another group
6 Leave MESSAGES for someone
7 See who is SIGNED ON now
Press HELP for an explanation, or Press BACK for other options.

The following display shows the record for a student named Paula.

```
"paula"  (student)                                lesson:  introducec
                                                    unit:  restart

| Created:   | 11/3/86                                                    |
| Last on:   | Date:  12/18/86 | time:  14:42 | station:  17-24           |
| Time on:   | hours:  2.3     | days:  1     | sessions:  6              |
| Resources: | CPU usage (TIPS) 7.3 | Disk accesses (DAPM)  5.9            |

Signon password:  XXXXXXXXXX


  Choose an option:

      1  change PASSWORD

      2  change spelling of NAME

      3  leave a MESSAGE

      4  curriculum STATUS (lesson completed, etc.)

      5  see/change current MODULE


    Press SHIFT-HELP for:  delete, turn-off

    Press SHIFT-NEXT for next person in roster
          SHIFT-BACK for previous person in roster
                BACK for other options
```

Lesson/unit

The top right of the record for Paula shows that the last lesson that she was studying was lesson "introducec", and the unit was "restart".

Signon Statistics

The box at the top of the display shows various statistics about the signon including: the date that the signon was created, when and where she was last signed on, how many hours, days, and sessions she has been on the computer, the processing time (CPU usage) that she has used, and the disk accesses that she has used per minute.

Password

The X's by the signon password indicate that she has been assigned or has chosen a password. You can use option 1 to change her password or set it so that no password is required.

Spelling

Option 2 (Change spelling of NAME) allows you to change her name without losing her statistics and progress data.

Message

Option 3 (leave a MESSAGE) allows you to send a message that Paula will see the next time she signs on.

Curriculum Status

Option 4 (curriculum STATUS) allows you to see her performance data. See the section of this manual titled "See Student Data" for more information.

See/change Current Module

Option 5 (see/change current MODULE) allows you to see which module Paula is currently working on and to change that module if you desire.

Delete or Turn-off

Press SHIFT-HELP to delete Paula's signon or to turn her signon off so that she will only see her message and not be able to work. You can delete the student from just the group (delete signon but don't delete student performance data), you can delete the student from just the student data file (only delete their performance record but don't delete their signon), or you can delete from both the group and the student datafile. Usually you will delete students from both the group and the student data file at the same time. But, you can change this so that you will only delete from either the group or the student data file.

Instructor Records

The record for an instructor signon is slightly different. The following display shows the record for the instructor signon "davis". With an instructor record, there is no option for curriculum status or current module. There is another option, option 4, which permits you to either ALLOW or NOT ALLOW the instructor to edit the group. Any instructor can monitor the progress of students in their own group, but only instructors who are ALLOWED to edit the group can create, change, or delete the signons in their own group.

```
"davis"  (instructor)                              lesson:
                                                     unit:

| Created:     | 12/14/86                                                    |
| Last on:     | Date:  12/31/86 | time:  11:32 | station:  7-21             |
| Time on:     | hours:  2.6     | days:  6     | sessions:  9               |
| Resources:   | CPU usage (TIPS)  .9 | Disk accesses (DAPM)  3.1          |

Signon password:  XXXXXXXXXX


 Choose an option:

       1  change PASSWORD

       2  change spelling of NAME

       3  leave a MESSAGE

       4  edit group "trial" NOT ALLOWED



     Press SHIFT-HELP for:  delete, turn-off

     Press SHIFT-NEXT for next person in roster
           SHIFT-BACK for previous person in roster
                 BACK for other options
```

Multiple and Author Records

Multiple and author records have only 3 options, change password, change spelling of name, and leave a message. If the password for a multiple is left BLANK, the person using the signon won't be asked to provide a password when signing on. It is often easier

to share a multiple signon among a lot of people if the password is BLANK. However, if more privacy or security is desired, a password can be specified for the multiple signon.

SUMMARY OF SEE/ADD/CHANGE SIGNONS

The following display is the See/Add/Change Signons display.

```
See/Add/Change Signons in group "trial"

Choose an option:

        1    See or change someone's record
        2    See LIST of users
        3    ADD Users
        4    DELETE Users
        5    COPY Signons from another group
        6    Leave MESSAGES for someone
        7    See who is SIGNED ON now

Press HELP for an explanation, or Press BACK for other options.
```

The options available from the previous display are:

See or change someone's record

This option allows you to see information about the user, change the user's password, change the spelling of the user's name, leave a message for the user, see the student's data, allow or not allow instructors to edit their own group, and delete or turn-off the signon.

See LIST of users

This option provides a list of users in the group. A symbol after each name indicates the type of user, "s" = student, "m" = multiple, "i" = instructor, and "a" = author.

ADD Users

You will need to specify a type of user. The preceding pages in this manual describe the user types.

DELETE Users

This allows you to delete signons from the group. There are additional options if you are deleting student signons. You can delete the student from just the group (delete the signon but don't delete the student performance data), you can delete the student from just the student data file (delete the performance record but don't delete the signon), or you can delete from both the group and the student datafile. Usually you will delete students from both the group and the student data file at the same time. But, you can change this so that you will delete only from the group or from the student data file.

Leave a MESSAGE for someone

You can leave up to 3 different types of messages which will be seen when the user signs on: 1) a message for an individual user, 2) a message for all users of a certain type (students, multiples, etc.), 3) a message to be seen by all users. Therefore, any user can see up to 3 different messages. The messages are shown immediately after signing on.

See who is SIGNED on now

You can see who is signed on in your group and what they are doing. You can also send them a message at the bottom of their screen or sign them off of the computer.

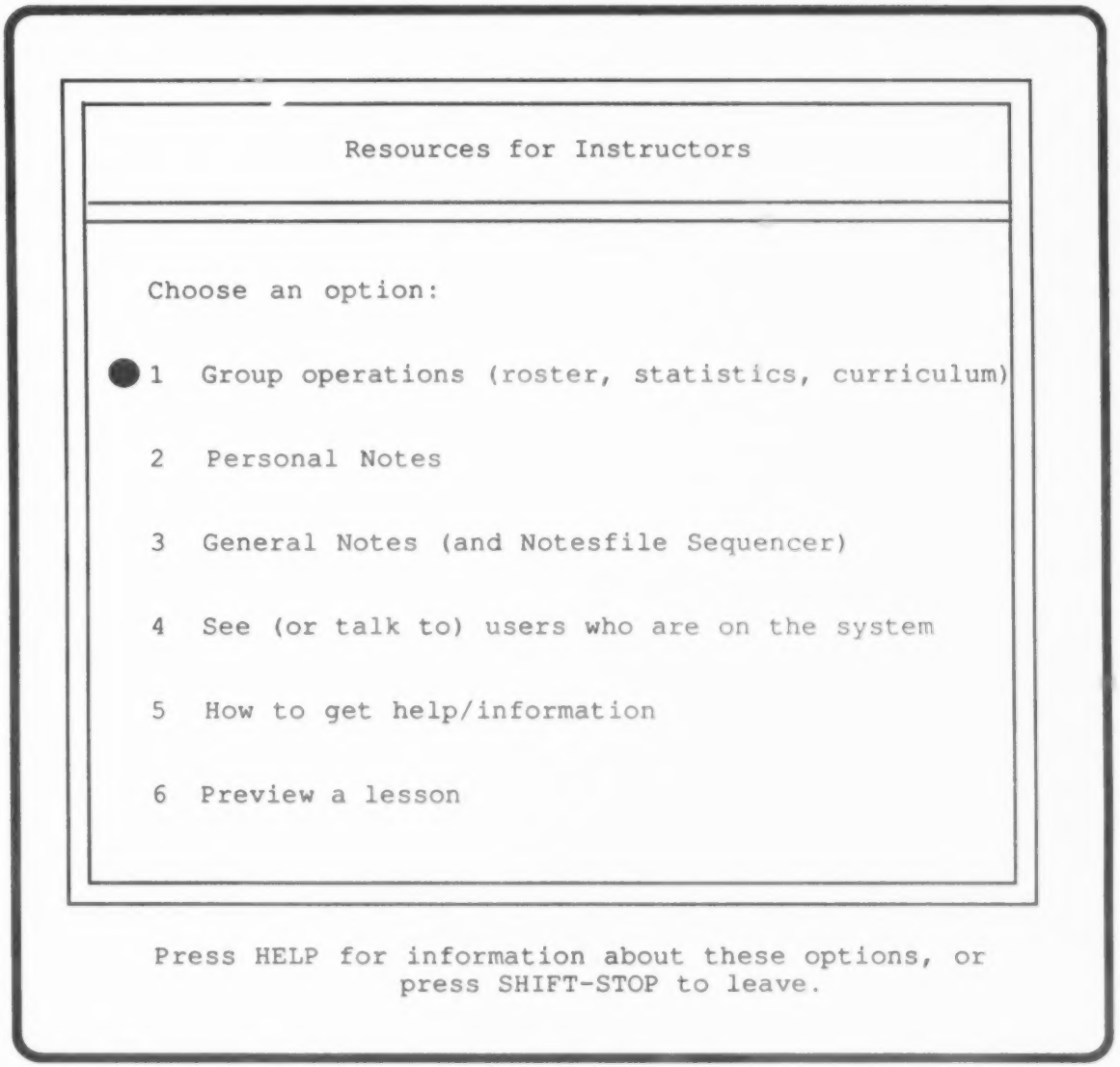
CHAPTER 7: SEE STUDENT DATA

If you are using a student data file, *crouter* will automatically save the following data for each lesson and module.

for lessons:	for modules:
score	time
completion ("ldone")	tries
time before done	starting date
number of tries	last date
last date in lesson	
word of status (for every lesson)	

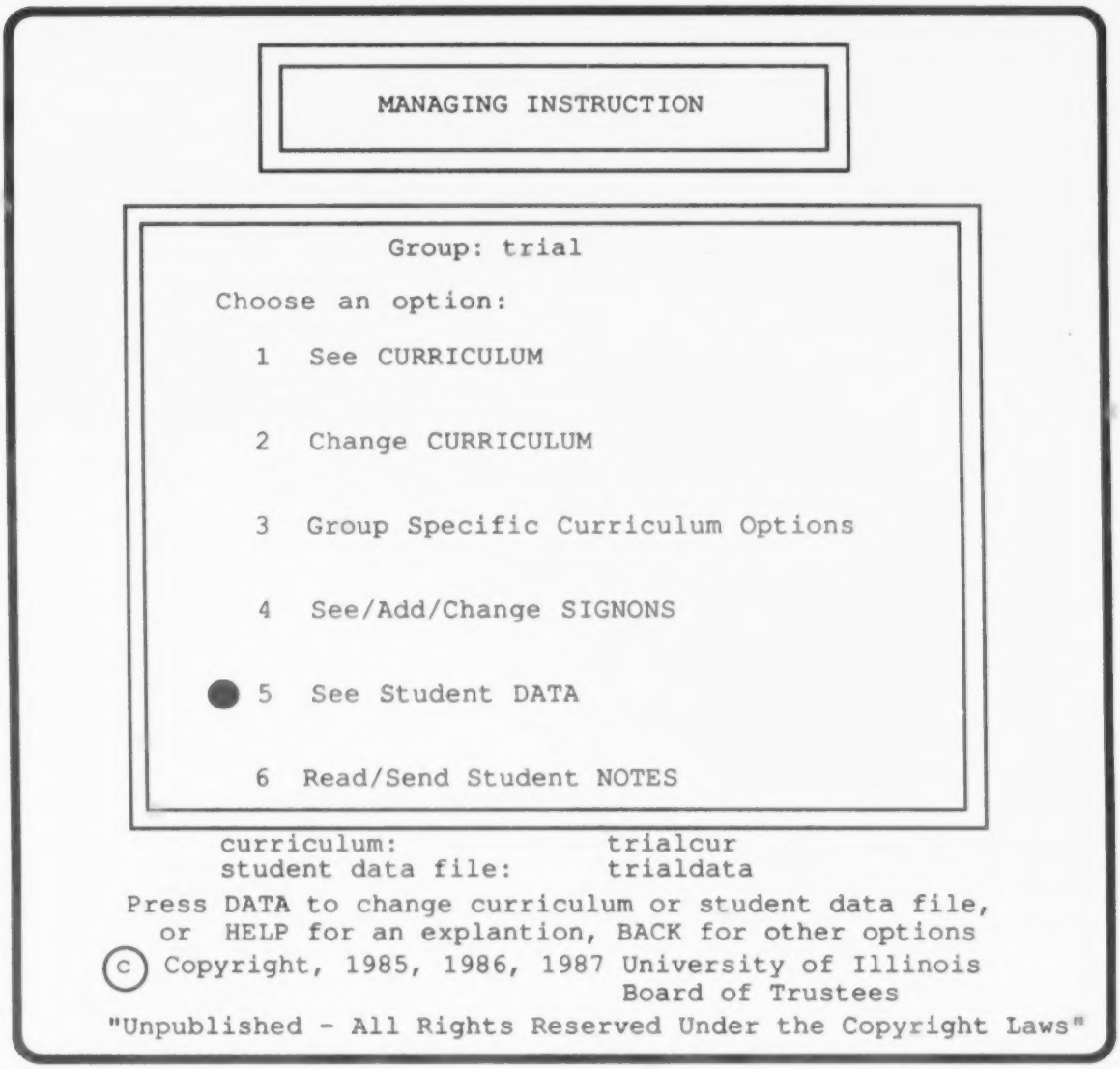
crouter automatically prepares this information for you in a tabular format. The following pages show some examples of student data that *crouter* can automatically prepare for you. Sometimes users will want to display the student data in some other format. For example, suppose an instructor wants to see a graph which plots the score in a lesson versus the time spent in a lesson. Anyone who wants to do this sort of specialized display of student data may -use- routines in the TUTOR lesson "usecrouter". These routines will allow a programmer to read the student data. For more information, authors can inspect lesson "usecrouter".

Instructors see the following display for their main index. To see the performance data for your students, choose option 1 (Group Operations). After choosing option 1, press NEXT to work with the group in which your signon belongs, or press LAB and enter the name and codeword of a different group.


Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
3 General Notes (and Notesfile Sequencer)
4 See (or talk to) users who are on the system
5 How to get help/information
6 Preview a lesson
Press HELP for information about these options, or
press SHIFT-STOP to leave.

Authors should enter their group by typing *crouter* on the AUTHOR MODE display and then entering the name and codeword for their group.

Both authors and instructors see the following display when working with their group. Choose option 5 (See Student Data) to see the performance data for your students.


MANAGING INSTRUCTION
Group: trial
Choose an option:
1 See CURRICULUM
2 Change CURRICULUM
3 Group Specific Curriculum Options
4 See/Add/Change SIGNONS
5 See Student DATA
6 Read/Send Student NOTES
curriculum: trialcur
student data file: trialdata
Press DATA to change curriculum or student data file,
or HELP for an explantion, BACK for other options
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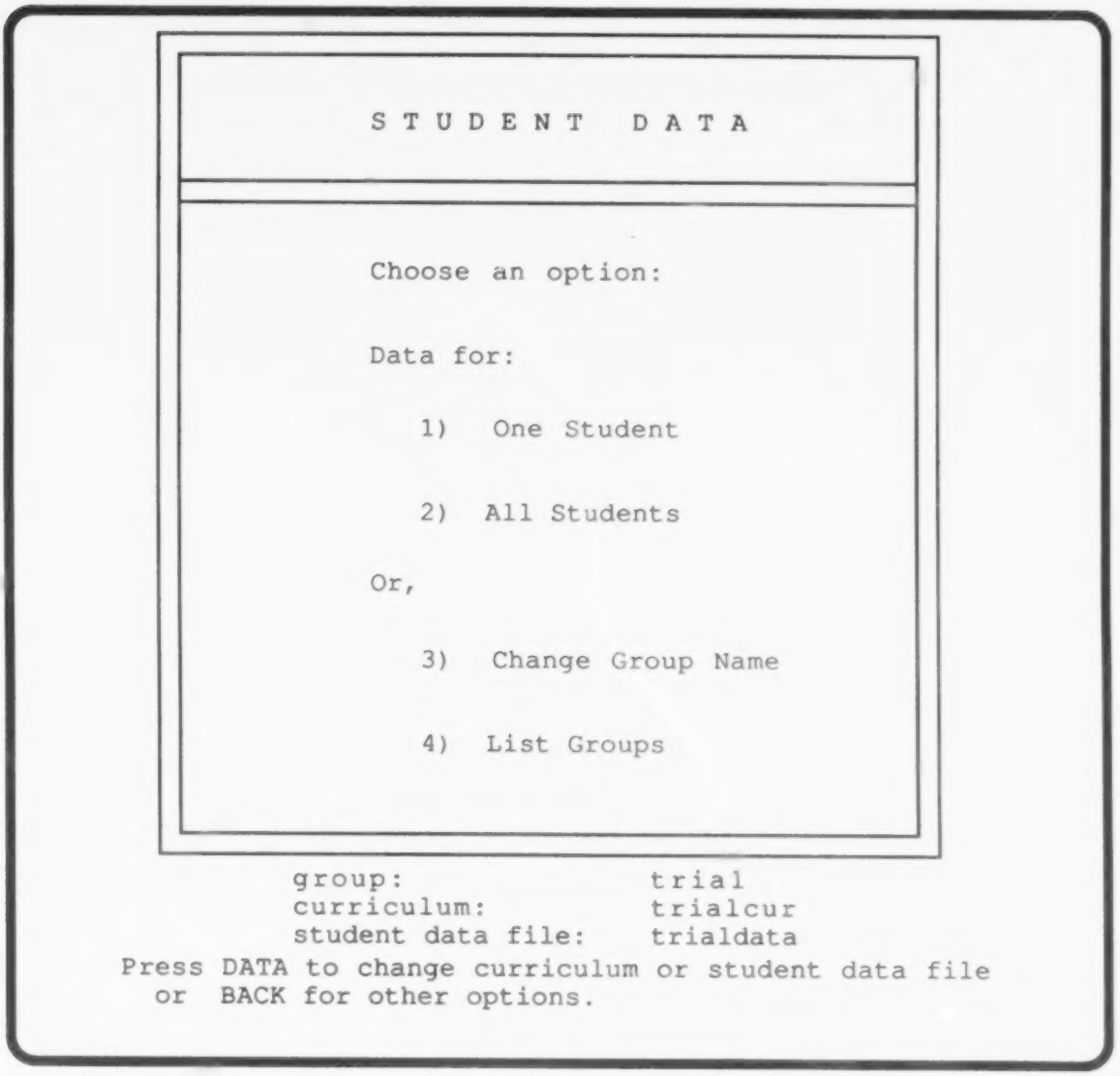
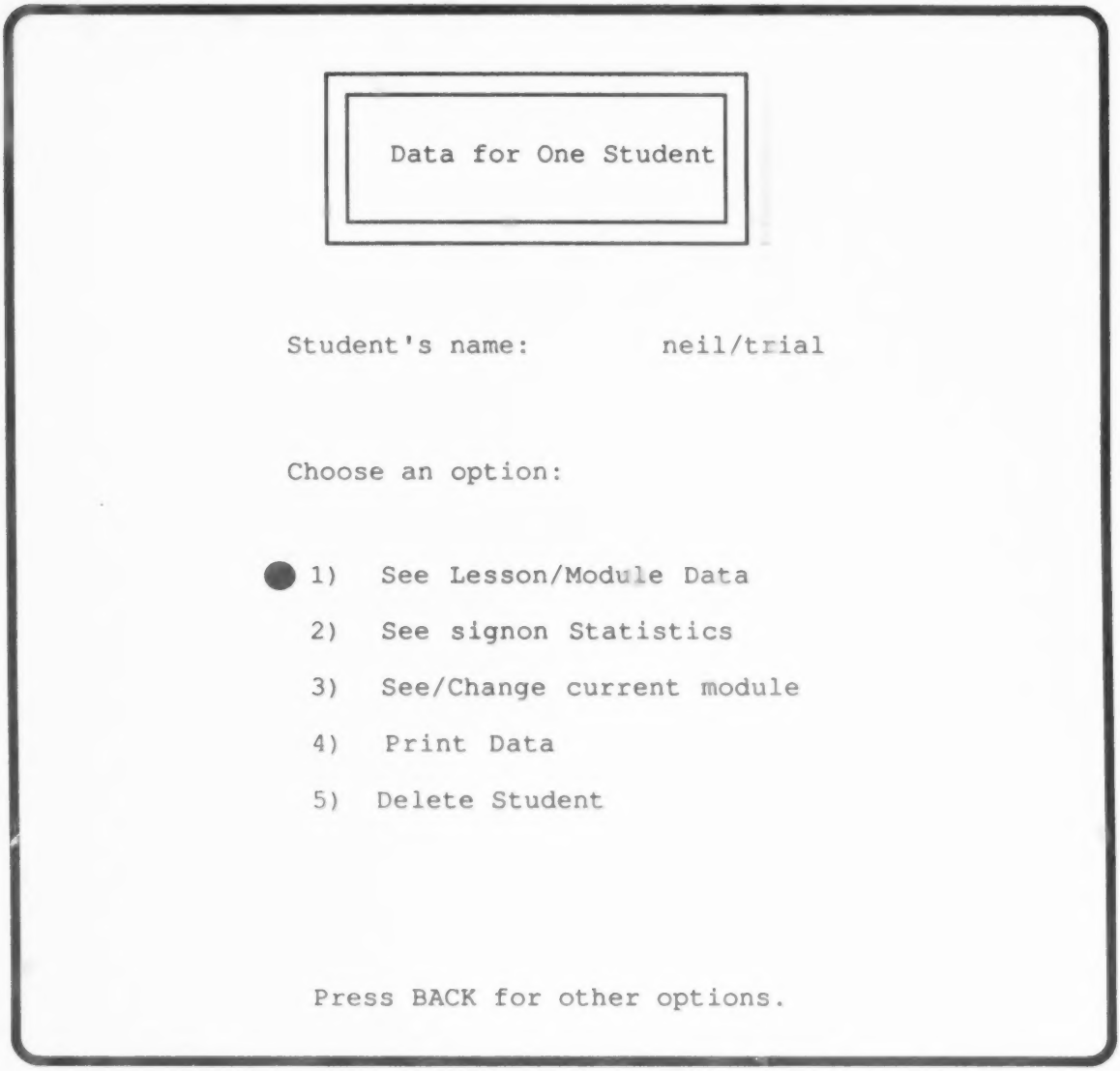
After choosing to "See Student DATA", you will see the following display.


S T U D E N T D A T A
Choose an option:
Data for:
1) One Student
2) All Students
Or,
3) Change Group Name
4) List Groups
group: trial
curriculum: trialcur
student data file: trialdata
Press DATA to change curriculum or student data file
or BACK for other options.

There are two ways to look at student data. You can choose to see data for one student at a time or for all students at the same time. (You can also choose to "Change Group Name" or "List Groups". These last two options will be explained later.)

DATA FOR ONE STUDENT

If you choose to see data for one student at a time (option 1 from previous display), you will see a display like the following. The following display is the index page for student data for a student named Neil who is in group "trial".



The options on the previous display are:

1) See Lesson/Module data for this student (more information on the following pages)

2) Signon Statistics

The signon statistics shows various statistics about the signon including: the date that the signon was created; when and where the student was last signed on; how many hours, days, and sessions the student has been on the computer; the processing time (CPU usage) that the student has used; and the disk accesses that the student has used per minute.

3) Change current module

You can change the module that the student will start the next session with by using the third option. If under "Group Specific Curriculum Options" you decided to select the option to start every session with the initial module, then the student will start with the initial module rather than the module specified as the current module. Otherwise, the student will start the next session with the specified current module.

4) Print Data

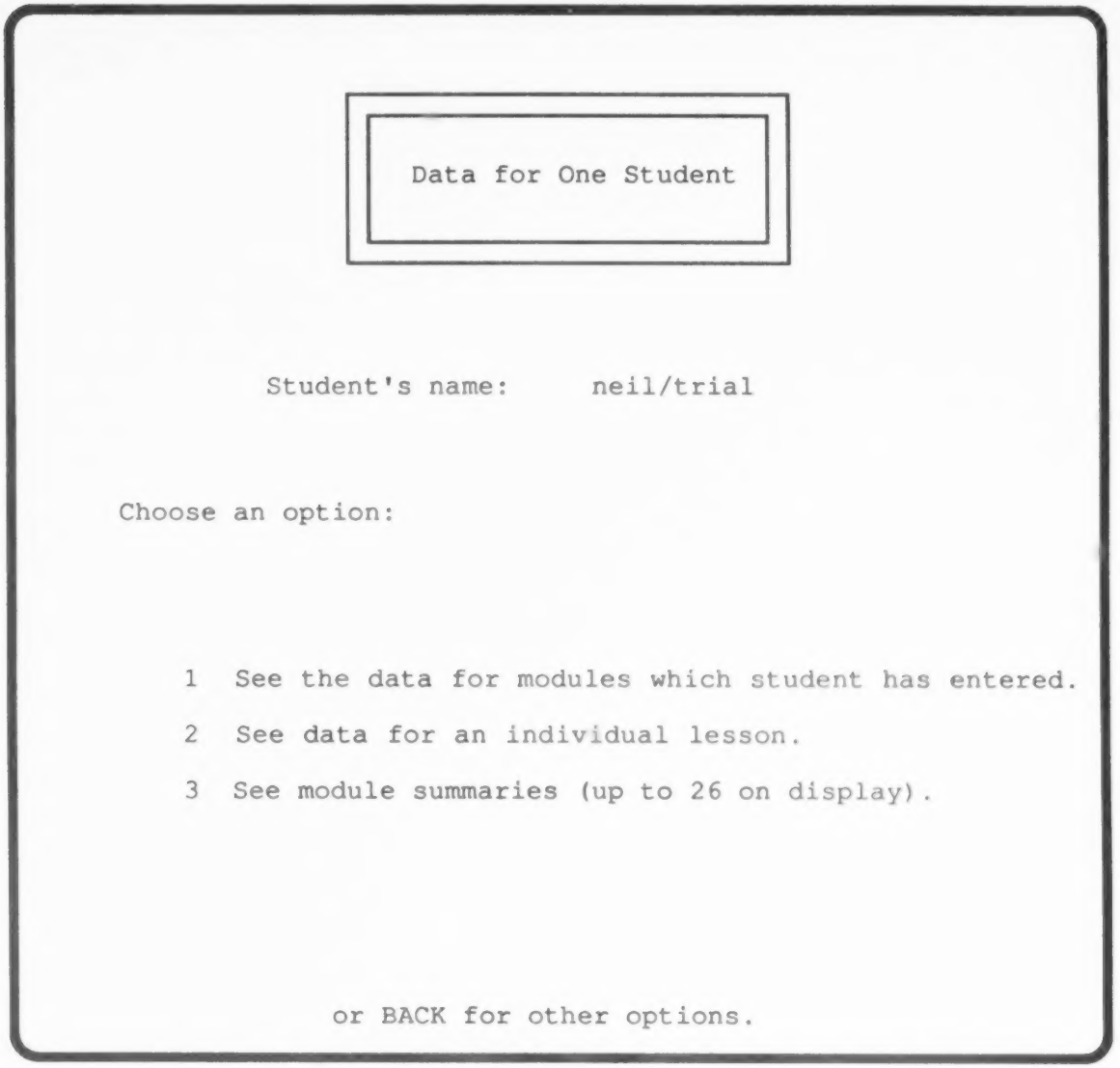
The fourth option allows you to acquire a print of the performance data on paper. You must have a nameset created for storing the data in printing format. If you choose this option, you will be told how large to make your nameset. The process to generate the data is a lengthy process and *crouter* will try to estimate how much time is needed before beginging to generate the data.

5) Delete student

You can either delete the student from the group (delete signon but don't delete student performance data), or delete the student from just the student data file (delete the performance record but don't delete the signon), or delete from both the group and the student datafile. Usually you will delete a student from both the group and the student data file at the same time. But you can change this so that you will only delete from either the group or the student data file.

See Lesson/Module Data

To see the student's perfomance data, choose option 1 (See Lesson/Module Data). You will then see the following display which lists the three ways of looking at performance data. Examples of each of these three methods for displaying student data is given later.


Data for One Student
Student's name: neil/trial
Choose an option:
1 See the data for modules which student has entered.
2 See data for an individual lesson.
3 See module summaries (up to 26 on display).
or BACK for other options.

DATA BY MODULES ENTERED

If you choose to see data for modules which the student has entered (option 1 in previous display), the computer will generate a list of all modules in which the student has spent time studying. You can then choose which modules you want to see. (Note: if there are no lessons in a module, the student will have spent no time in the module, so the module will not be included in the list of modules.)

An example for module "fractions" follows:

Data for: neil/trial Module: fractions

done:- / time:81 min. / start: 11/23/86 / last: 12/ 22/86

lesson name	score	done	time 1	time 2	tries	date
A pizza		+	43	Ø		11/23/86
B rec	97	*	38	11	12	12/22/86

Press NEXT for the next module, BACK for other options.
SHIFT-DATA to change data.
Press HELP for an explanation of the symbols.

There are two types of data on this display.

1. **Data about module "fractions" is shown in the long horizontal box (top of display). The data includes:**

done
= "*" if module completed (if the student left module by pressing NEXT)
= "-" if no end to module or module not completed

time
total number of minutes studying lessons in this module

start
the date that the student started this module

last
last date that the student entered this module

2. **The second type of data is the data for each lesson in this module. Data includes:**

score
a score for the lesson, between 0 - 100.

done
= "*" if the lesson is completed
= "+" if the lesson has no end
= "-" if the lesson was not completed

time 1
time spent in lesson before it was competed

time 2
time spent reviewing lesson (time spent in lesson after it was completed)

tries
number of times this lesson has been tried

date
last date that the student was in the lesson

If you have "edit" access to the group, you can press SHIFT-DATA to change the data on this display.

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DATA FOR INDIVIDUAL LESSON

If you choose to see data for an individual lesson, you can either enter the lesson's filename or cycle through all of the lessons in the curriculum. To cycle through all of the lessons, press either LAB to see the next lesson, or press SHIFT-LAB to see the next 26 lessons. If you have "edit" access to the group, you can press SHIFT-DATA to change the data on this display.

The following display shows an example of data for all of the lessons in a small curriculum.

Data for: neil/trial

lesson name	score	done	time1	time2	tries	date
A darts	87	*	32	Ø	1	11/23/86
B geofr1						
C introducec	96	*	21	Ø	1	11/23/86
D paint						
E pinball						
F pind		+	27	Ø	2	11/23/86
G pinw						
H pizza		+	43	Ø	1	11/23/86
I rec	97	*	38	11	2	11/23/86
J sea						
K sentences						
L span1						
M speedway						
N voc						
O west						

HELP available
LAB for first lesson.

Enter filename>
Press SHIFT-LAB for the first 26 lessons.
Press SHIFT-DATA to alter data, DATA for list of lessons.

The data includes:

score
score between 0 and 100

done
= "*" if lesson was completed
= "+" if lesson has no end
= "-" if lesson was not completed

time 1
time spent in the lesson before the lesson was completed

time 2
review time (time spent in lesson after the lesson had been completed)

tries
number of times that the student has tried this lesson

date
the last date that the student entered this lesson

MODULE SUMMARY DATA

If you choose to see module summaries, you will see information only about the modules. You will not see data about the lessons that are associated with these modules.

You can either specify the name of the module for which you want data, or you can press LAB to see the first or next module, or SHIFT-LAB to see the next 26 modules. If you have "edit" access to the group, you can press SHIFT-DATA to change the data on this display.

The following display shows the module summary data for a small curriculum.

student: neil/trial

module name	tries	done	time in module	starting date	last date
A decimals	1	-	4 2	11/23/86	11/23/86
B fractions	2	-	8 1	11/23/86	12/22/86
C languages					
D main	2	*	2	11/23/86	11/23/86
E math					

Enter Module: Press HELP for explanation.
LAB for first module, SHIFT-LAB for first 26 modules.
Press SHIFT-DATA to alter data, DATA for list of modules.

This data includes:

tries
the number of times the student entered this module after leaving another module or when signing on

done
= "*" if the module was completed (a module is considered to be completed if the student presses NEXT and is able to leave the module)
= "-" if the module is not done or if there is no end to the module

time in module
number of minutes that the student has spent studying lessons in this module

starting date
the first date that the student entered this module

last date
the last date that the student was in this module

DATA FOR ALL STUDENTS

If you choose to see data for all students, you will see a display like the following.

Data for All Students
Choose a type of Data:
1) Lesson data
2) Module summary data
3) Signon Statistics
4) Print data for all students
5) Delete ALL students
Press BACK for other options.

The above options are:

1) Lesson data (This option allows you to see the data for all students in one lesson. More information on following pages.)

2) Module Summary data (With this option, you can see the data for all students in one module. More information on following pages.)

3) Signon Statistics (The third option shows summary information for when and how the signons were used.)

4) Print Data (This option allows you to get a print on paper of all of the student data.)

5) Delete ALL Students (This option allows you to delete all of the students from the group and/or the student data file. You can delete the student from just the group (delete signon but don't delete student performance data), you can delete the student from just the student data file (only delete their performance record but don't delete their signon), or you can delete from both the group and the student datafile. Usually you will delete students from both the group and the student data file at the same time. But, you can change this so that you will only delete from either the group or the student data file.)

LESSON DATA

The following display shows the lesson data for all students for lesson "introducec". (This is from option 1 in the previous display.) You can either specify the name of the lesson for which you want data, or you can press LAB to see the first or next lesson. If you have "edit" access to the group, you can press SHIFT-DATA to change the data on this display.

Lesson: introducec

student name	score	done	time1	time2	tries	date
A amy						
B eric	89	-	13	0	1	11/22/86
C erin						
D mark						
E neil	96	*	21	0	1	11/23/86
F paula						
G sally						
H sarah						
I trent						

HELP for explanation
Enter filename LAB for next lesson.
Press SHIFT-DATA to alter data, DATA for list of lessons.

This data includes:

score
score between 0 and 100

done
= "*" if lesson was completed
= "+" if lesson has no end
= "-" if lesson was not completed

time1
time spent in the lesson before the lesson was completed

time2
review time spent in the lesson (time spent in the lesson after the lesson has been completed).

tries
number of times that the student has tried this lesson

date
the last date that the student entered this lesson

MODULE SUMMARY DATA

The following display shows the module summary data for all of the students for module "main". You can either specify the name of the module for which you want data, or you can press LAB to see the first or next module. If you have "edit" access to the group, you can press SHIFT-DATA to change the data on this display.

Module: main

student name	tries	done	time in module	starting date	last date
A amy					
B eric	1	-	13	11/22/86	11/22/86
C erin					
D mark					
E neil	2	-	21	11/23/86	12/22/86
F paula					
G sally					
H sarah					
I trent					

Module name: ❯ Press HELP for explanation.
LAB for next module.
Press SHIFT-DATA to alter data, DATA for list of modules.

The data includes:

done
="*" if the module was completed (a module is considered to be completed if the student presses NEXT and is able to leave the module.)
="-" if the module is not done or if there is no end to the module.

time in module
number of minutes that the student has spent studying lessons in this module.

starting date
the first date that the student entered this module.

last date
the last date that the student was in this module.

CHANGE GROUP NAME

Another option under "See Student DATA" is to "Change Group Name". Each student's data is stored separately and is labeled by both the student's name and the student's group. If you rename your group by using the account options, you must also use this option to change all of the labels in the student data file.

If the name of the group was changed and a student signed on before you used this option to rename the group, then there will be two entries for the student (one entry will be "student name/oldgroup" and the other entry will be "student name/newgroup"). Once this option is performed, the student data will be combined and stored under the entry "student name/newgroup".

LIST GROUPS

The final option under "See Student DATA" is to "Manage multiple groups". Each student's data is stored separately and is labeled by both the student's name and the student's group. Since the student data is labeled by both name and group, a student data file can contain data for more than one group (as long as all of the groups use the same curriculum file). However, it is best to use one student data file for each group because sharing a student data file among several groups may make it more difficult to look at student data for one group at a time. If you use this option, you can see which groups are using your student data file.

CHAPTER 8: STUDENT NOTES FILES

A student notes file allows you to have "electronic" conversations with your students. Your students can store notes for you. You can read and respond to those notes and store new notes for individual students to read. Student notes files are also a place where *crouter* will store warning messages if your student data file becomes close to full.

If you want to use student notes, you must create a student notes file.

To create a student notes file:

1. **Ask your account director to create a student notes file.**

2. **Have an *author* set some infomation in the group directory.**

    a. Type the **name** of the group on the AUTHOR MODE display.

    b. While in the group, press DATA to get to the group description. This will take you to the group directory.

    c. In the **associated files** section of the group directory, set the **student notes file** to the name of the file that your account director has created for you.

You should check your student notes file regularly so that you can respond to all notes from students.

There are several ways to read student notes:

1. **Check student notes through group options.**

    a. Instructors choose option 1 (Group Operations). Authors should enter their group by typing *crouter* on the author mode display and entering the name and codeword for their group.

    b. Both authors and instructors should then choose option 6 (Read/Send Student NOTES).

2. **Enter student notes from Notes option or from AUTHOR MODE display.**

    If you have several student notes files for several different groups, it may be easier not to enter each group in order to read the student notes.

    a. Instructors should choose option 3 ("General Notes") from their *Resources for Instructor* index and enter the name of a student notesfile which they would like to read.

b. Authors should enter the name of the student notes file on the AUTHOR MODE display.

3. **Use Notesfile Sequencer**

If you use a notesfile sequencer to help you keep track of the notes that you have not yet read, you can add your student notesfiles to your sequencer. See Section A for more information about notesfile sequencers.

CHAPTER 9: SUMMARY OF DELIVERING INSTRUCTION

The following checklist summarizes all the steps that you need to follow in order to set up a *crouter* group.

1. Design Curriculum

If you are going to be using an existing curriculum, find out the name of the curriculum and the READ records codeword.

If you are going to make your own curriculum, decide which lessons you want your students to see. You must know the filename for each lesson. You can find the filename by looking in the catalog of lessons. (To get to this catalog, if you have an instructor signon choose the option "Choose a lesson to study" and press LAB for the catalog, or if you have an author signon, type "C" (SHIFTed) on the AUTHOR MODE display.) Design your curriculum on paper. See the section of the manual titled "Structure of a Curriculum".

2. Create Files

Create your files and make the necessary connections. See the chapter of this manual titled "Creating Your Files".

3) Edit Curriculum (optional)

If you are using an existing curriculum, you do not have to do this section.

If you are creating a new curriculum you will have to enter your curriculum into the computer. See the section of the manual titled "Building a *crouter* curriculum". If you are creating a curriculum for the first time, you may want to use the help lesson to practice the editing options before editing your curriculum.

4) Add Signons

Enter the signons for the students and/or instructors. See the chapter of the manual titled "See/Add/Change Signons". Create a student or instructor signon for yourself so that you can test out the curriculum.

5) Test Signon

Use your student or instructor signon to sign on to the computer and test the curriculum. Make sure that you can get to all of the modules that the students should study.

6) Check Student Data

Check the student data to see if your signon stored data correctly. See the chapter of this manual titled "See Student Data".

Section C

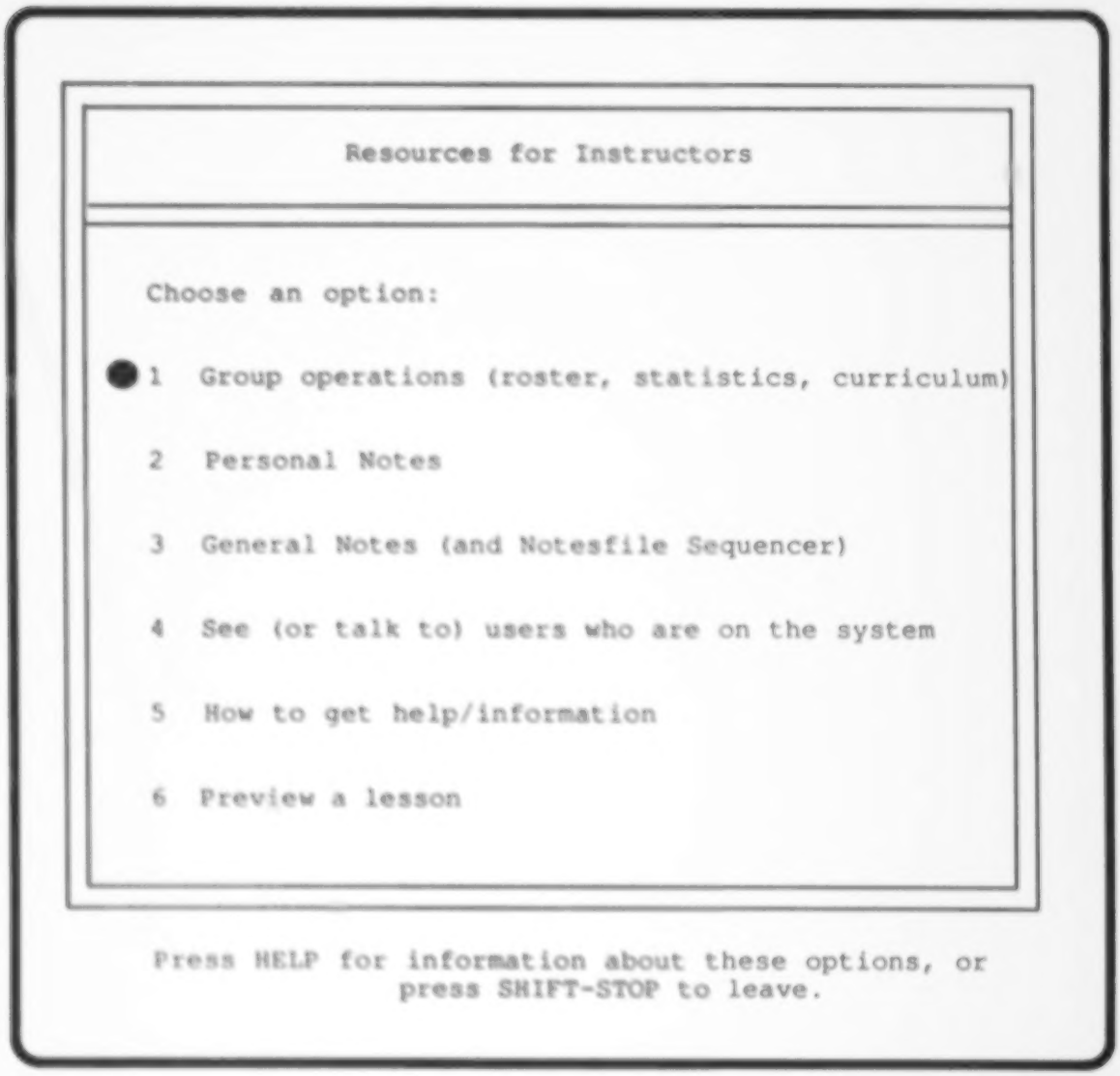
Building a *crouter* curriculum

CHAPTER 1: INTRODUCTION

This section describes how to enter a new curriculum, or modify an existing curriculum. You should have your curriculum organized on paper before you edit the curriculum. See the chapter, "Structure of a Curriculum", for information on how to organize your curriculum on paper.

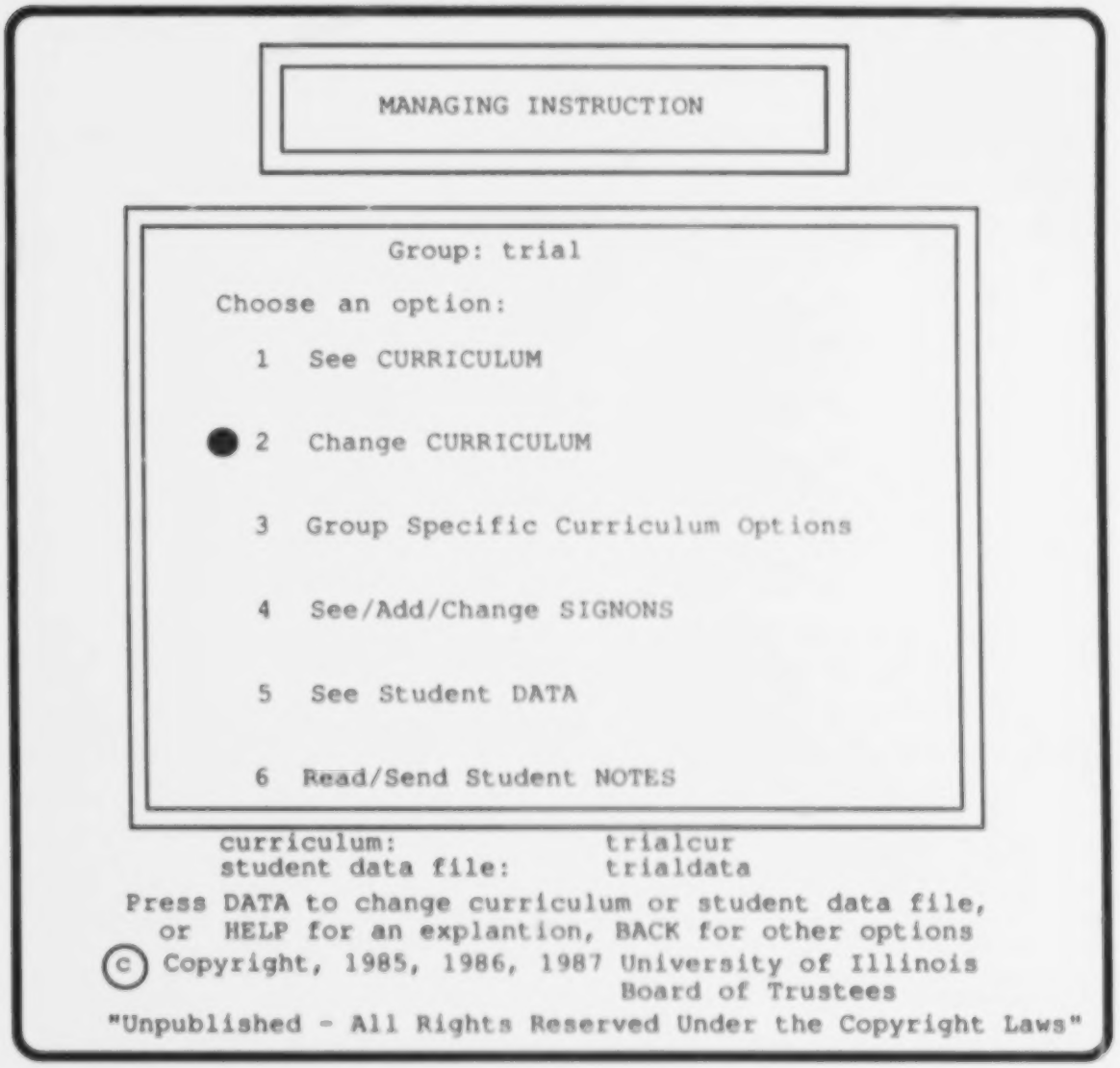
Your group must be created and all of the connections made before you can edit your curriculum. To create a group and to make all of the connections, see the chapter of this manual titled "Creating Your Files".

Instructors see the following display for their main index. Instructors should choose option 1 (Group Operations) in order to edit a curriculum. Press NEXT to work with the group in which your signon belongs, or press LAB and enter the name and codeword of a different group.


Resources for Instructors
Choose an option:
1 Group operations (roster, statistics, curriculum)
2 Personal Notes
3 General Notes (and Notesfile Sequencer)
4 See (or talk to) users who are on the system
5 How to get help/information
6 Preview a lesson
Press HELP for information about these options, or
press SHIFT-STOP to leave.

Authors should enter their group by typing *crowter* on the AUTHOR MODE display and then enter the name and codeword for your group.

Both authors and instructors see the following display when working with their groups. Choose option 2 (Change CURRICULUM) to edit your curriculum.


MANAGING INSTRUCTION
Group: trial
Choose an option:
1 See CURRICULUM
2 Change CURRICULUM
3 Group Specific Curriculum Options
4 See/Add/Change SIGNONS
5 See Student DATA
6 Read/Send Student NOTES
curriculum: trialcur
student data file: trialdata
Press DATA to change curriculum or student data file,
or HELP for an explantion, BACK for other options
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Board of Trustees
"Unpublished - All Rights Reserved Under the Copyright Laws"

You must provide the name of the curriculum and the WRITE records codeword for the curriculum before being able to change the curriculum. The name of the curriculum is available on the bottom of the "Managing Instruction" display (previous display).

The following display is the main index page for "Editing a Curriculum".

CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
Choose an option:
1 EDIT a module
2 Specify INITIAL module in curriculum
3 Speci Universal Function KEYS
4 RENA a module
5 COPY a module
6 DELETE a module
7 See CATALOG
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-EDIT to destroy the curriculum,
BACK for other options, or
HELP for more information.

CHAPTER 2: CREATE/EDIT A MODULE

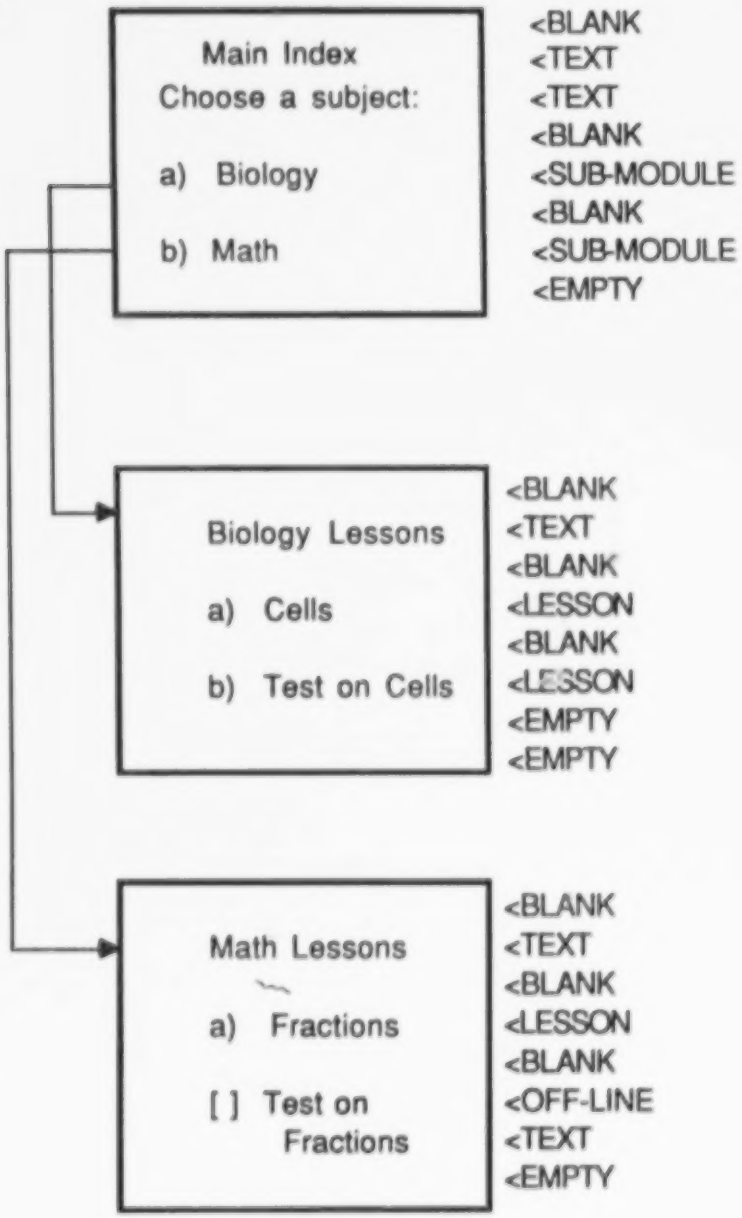
The first step when creating a new curriculum is to create a new module. When you edit a module, you are creating the display that the student will see and the progression of lessons and modules that the student will study.

Editing a module is similar to writing a note in author mode on NovaNET. If you are not very familiar with the notes editing options (for example "i" to insert, "r" to replace), then you should press the HELP key and practice editing in the help lesson.

When you are ready to edit a module, choose option 1 (EDIT a module) to create a new module. (This option also lets you change an existing module.) After choosing option 1, you need to specify the name of the module. Choose a name that is unique and will easily identify the purpose of the module.

TYPES OF LINES

A module consists of 26 lines. There are 6 different types of lines in a module. Let's take a look at our sample browsing curriculum again in order to illustrate the different types of lines. (Note: these modules are much smaller than 26 lines so that the example will be easier to see.)



The 6 types of lines are:

LESSON lines	for entering lessons
SUB-MODULE lines	for entering sub-modules
OFF-LINE lines	for entering off-line assignments
TEXT lines	for giving the student directions or other messages
BLANK lines	for spreading out the display to make it more readable
EMPTY lines	for lines not used at bottom of module

Notice that the "Test on Cells" in the Biology module is considered a lesson line. This is because tests on the computer are really normal lessons. The student goes to the lesson (test), finishes the lesson (test), and then a score for the lesson (test) is returned to the student data file.

Notice also that the off-line assignment in the "math" module takes up two lines in the module. The first line is an OFF-LINE line. The second line is a TEXT line. In the OFF-LINE line, the name of the assignment is specified. Since there is not a second assignment for the second line, the second line is considered a TEXT line rather than an OFF-LINE line.

EDITING DIRECTIVES

There are several different editing modes. An editing mode allows you to enter new information into the module. To enter an editing mode, you need to type an editing directive. The following editing directives are used for the most common *crouter* editing modes:

editing directive		editing mode
I	(or i)	for Inserting TEXT lines
L	(or l)	for adding LESSON lines
M	(or m)	for adding SUB-MODULE lines
O	(or o)	for adding OFF-LINE lines

You can enter an editing mode when the arrow is in the upper right corner of the screen (top arrow). To enter an editing mode, type the letter of the editing directive followed by the line number of the line that you want to insert after. For example: I4 inserts text after line 4. Press NEXT after typing the line number.

After you press NEXT, the arrow will move to the module display and you can enter new information into the module.

If you press NEXT after entering the information, you will go to the next line in the module and remain in the same editing mode.

If you press BACK after entering the information, you will return to the top arrow and can change editing modes.

To enter a blank line, use any of the above modes, and press NEXT without typing anything on the line.

LIST OF EDITING DIRECTIVES

Besides entering new information into the module, you also need to be able to change existing information, delete information, insert graphics, specify branching based on function keys, and change the type of the module. The following list shows the complete set of *crouter* editing directives. This list is also available by pressing HELP when editing a module.

directive	action
I#	Insert text after line #
I5	Insert text after line 5
I	Insert text after line 1
L#	Insert Lesson(s) after line #
L5	Insert Lesson(s) after line 5
M#	Insert module(s) after line #
M20	Insert module(s) after line 20

O#	Insert Off-line assignment(s) after line #
O3	Insert Off-line assignment(s) after line 3
R#	Replace line #
R19	Replace line 19
D#-#	Delete lines # through # (SHIFT-HELP)
D5-20	Delete lines 5 through 20
D20	Delete line 20
D-20	Delete lines 1 through 20
D	Delete line 1
S#-#	Save lines # through # in save buffer
S5-20	Save lines 5 through 20
A#-#	Append lines to end of save buffer
A-8	Append lines 1 through 8 to end of save buffer
IS#	Insert saved lines after line #
IS8	Insert saved lines after line 8
N	Replot the display
G	Graphics (boxes, circles, arcs, lines, vectors, sized/rotated text)
DATA	List lessons and modules referenced by current module
K	Specify module to go to if function key is pressed
T	Specify type of module (Index, Sequence, Sequence with review)
SHIFT-NEXT	Store current module
SHIFT-BACK	Exit current module without storing changes

DELETING LINES

After typing most editing directives at the top arrow, you must press NEXT. The only exception to this is for deleting lines. Since the deletion action is more drastic than any of the other options, you must press SHIFT-HELP (instead of NEXT) after typing the deletion. For example, to delete line 8, type "D8" and then press SHIFT-HELP.

ADDING LESSONS, OFF-LINE ASSIGNMENTS, AND MODULES

When inserting lessons, off-line assignments, and modules, you must supply two pieces of information.

1. **The first piece of information is the "filename" (or "off-line" name or "module name").**
   The filename is the exact name that you must supply in order to access the lesson. The off-line name is a name that you use to reference the off-line assignment. Likewise, the module name is the exact name that you use to specify a module. The student will never see the filename (or the off-line name or the module name). After entering the filename (or off-line name or module name), press NEXT.

2. **The second piece of information is a description.**
   At the second arrow type the "File title" (or "Off-line title" or "Module title"). The title is a description of the lesson (or off-line assignment, or module) and the title will be displayed to the student.

You can use a lesson more than one time in a curriculum. However, *crouter* will combine all the student performance data for that lesson into one lesson entry. For example, suppose a student entered lesson "fractions" once from the "math" module and once from the "review" module. When you go to see the performance data for module fractions, it will say that the student studied lesson "fractions" two times.

PASSING ARGUMENTS TO A LESSON

Some lessons will require that extra information be given with the filename. This extra information is called "arguments". If you need to include arguments for a lesson, include the arguments with the filename. The arguments should be enclosed in parentheses and separated by commas. For example: "test(1,54)" will send two arguments to lesson "test".

crouter considers entries with the same lesson name but different arguments to be different entries. Therefore, separate student data is saved for each entry. For example, *crouter* will save separate scores for the lessons "fractions(1)" and "fractions(2)", but will save only one set of scores for two occurrences of "fractions(2)".

GOING TO A SPECIFIED UNIT IN A LESSON

Sometimes you will want to specify a unit inside a lesson where you want your students to start studying. To do this, place a comma between the lesson name and the unit name. For example:

lessnam,one	goes to	lesson:	"lessname"
		unit:	"one"
again,new	goes to	lesson:	"again"
		unit:	"new"
again,two(1,2)	goes to	lesson:	"again"
		unit:	"two"
			and passes two arguments.

crouter considers entries with the same lesson name but different units to be different entries. Therefore, separate student data is saved for each entry. For example, *crouter* will save separate scores for lessons "again,new" and "again,two(1,2)", but will save only one set of scores for the two occurrences of "again,three".

CONDITIONAL LESSONS AND SUB-MODULES

Sometimes, you may want your students to go to a different lesson or sub-module depending on their past performance. You can do this with conditional lessons or conditional sub-modules.

To enter a conditional lesson or conditiional sub-module:

1. **Use the same editing directive to enter conditional items as you use to enter normal items.**

For example:

"L4"	enters a conditional (or regular) lesson after line 4.
"M10"	enters a conditional (or regular) module after line 10.

2. **When the top arrow asks you for either a "Filename" or a "Module name", press SHIFT-LAB instead of entering a name.**

3. **You will then be asked to specify the "File title" or the "Module title". The same title will be displayed for all conditions.**

4. **After you enter the title, you will be taken to a table where you can specify the conditions.**

Some example conditions are:

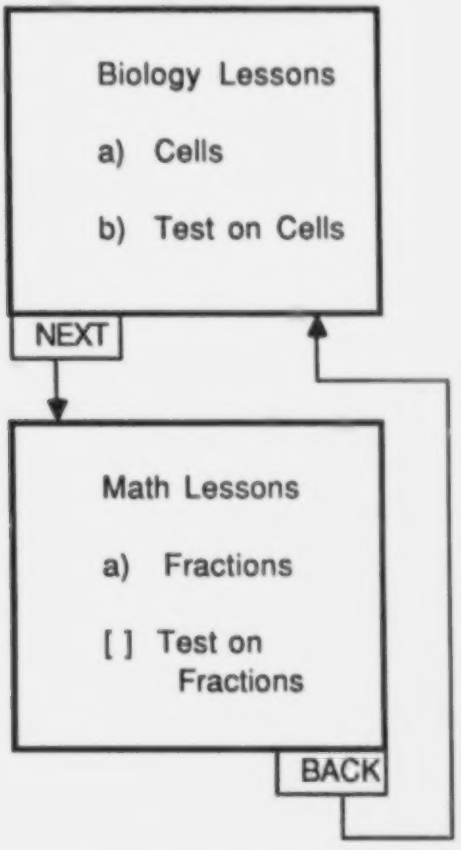
If: score(pretest)>90
then go to module(topscore)

If: time(pretest)>70
then go to module(review)

For a more detailed explanation of using conditions, see the chapter in this manual titled "Example using conditions".

USING FUNCTION KEYS

Sub-modules allow you to move from one module to another by pressing an alphabetic key (a - z). You can also move to another module by pressing a function key. The following curriculum uses the NEXT and BACK function keys to progress between modules.



The NEXT and BACK keys are examples of function keys. Other function keys are available for branching the students from one module to another. In every module, a student can press one of ten different function keys to go to one of ten different modules. The following function keys are available:

ALLOWABLE FUNCTION KEYS

NEXT	SHIFT-NEXT
BACK	SHIFT-BACK
LAB	SHIFT-LAB
DATA	SHIFT-DATA
HELP	SHIFT-HELP

DEFAULT BACK PROGRESSION

Crouter automatically maintains a record of the student's progression through the modules. You can use this record for the "default back progression". This means that if the students press the BACK key, they will automatically be taken to their previous module.

When you first create a module, it is set to use the "default back progression". If you want to use the "default back progression", you usually will not have to specify the "back module".

However, sometimes you may want to set the BACK module. Some cases where you may want to set the BACK module are:

1) when you don't want to default to the previous module
2) for the first module in the curriculum (since there will be no previous module)
3) if there could possibly be more than 10 levels of modules since *crouter* keeps a record of only the last 10 modules.

SPECIAL FUNCTIONS FOR FUNCTION KEYS

The function keys can perform other special functions in addition to taking the student to another module.

To set a special function for a function key:

1. **Type "K" (for function Keys) when editing the module.**
2. **Next, choose the function key for which you want the special function.**
3. **Finally, press LAB for special options and choose the appropriate special function.**

The special functions are:

1) See Lesson Data

This special function allows the students to see their progress data. For example, suppose you specified this function to be active for the DATA key. When the students press DATA, they see the scores that they earned for the lessons in the current module. The following automatic message is shown to the students to tell them that this key is active:

Press (appropriate key name) to see your data.

2) See File/Module name

This special function allows users to see the filenames or module names associated with the lessons or modules in the current module. This is useful for instructors who want to know the filename for a lesson in the curriculum. There is no automatic message shown to the students to tell them that this key is active. Therefore, you may want to insert a TEXT line that says something like "Press LAB for filenames and module names.".

3) No Exit

The third special function "NO EXIT" means that the student cannot exit from this module when the specified key is pressed. This would usually be the same as leaving the entry blank. However, using NO EXIT will allow you to override a Universal Key setting. (Universal Keys are explained later in this manual.)

4) Conditional Branching

The fourth special function, "Conditional Progression", allows the instructor to set conditions which the student must satisfy before being allowed to leave the module.

A sample conditional table is:

If: done(fractions)
then go to module(decimals)

If: tries(fractions) > 3
then go to module(review fractions)

See the chapter "Example using conditions" for more information on conditional modules.

5) Go to previous module

The last special function allows you to tell the student to go to the previous module. The "Go to previous module" is useful if there are several ways to get to the current module and you want to send the student back where s/he came from.

AUTOMATIC MESSAGES

There are three messages that are automatically displayed by *crouter* if certain function keys are active:

1) if there is a NEXT module, then the message
   Press NEXT to continue
   will automatically be displayed.

2) if there is a BACK module, then the message:
   Press BACK to review
   will automatically be displayed.

3) if the special function to show the student's data is used, then the message:
   Press (appropriate key name) to see your data
   will automatically be displayed.

There are no other automatic messages for function keys. If you want to display a message to the students for a something else, you will have to insert a text line into your module which contains the message. For example, "Press SHIFT-BACK to return to the main index."

TYPES OF MODULES

There are three types of modules. When a module is created, it is automatically set to the "INDEX" type.

To change the type of a module, press "T" when editing the module.

INDEX MODULES

All of the modules which you have seen so far are called INDEX modules. This type of module always presents the same display to the student. Each lesson and sub-module in the INDEX module is always displayed to the student, and the student can study the lessons and sub-modules in any order. In the following example, the student can study the three lessons in any order.

```
Study these Lessons:

a)  Cells
b)  Plants
c)  Animals
```

The INDEX Module is the most common type of module. *crouter* will assume that all modules are INDEX modules unless you specify another type of module.

SEQUENCE MODULES

Another type of module is the SEQUENCE module. If the above example was a SEQUENCE module, the student would never see the words "Study these Lessons" or any of the three lessons.

When the student first enters the above SEQUENCE module, s/he will immediately be sent to the lesson "Cells" without seeing the module display.

When the student completes lesson "Cells", s/he will immediately be sent to the lesson "Plants" without going to the module display. Likewise, when the student finishes lesson "Plants", s/he will be sent immediately to "Animals".

When the student completes the last lesson, s/he will be sent to either the NEXT module (if a NEXT module is specified), or to the previous module (if there was a previous module or if a BACK module is specified), or signed off if no NEXT or BACK module exists. (If BACK is available, the student can press BACK at any time to review.)

SEQUENCE WITH REVIEW MODULES

The SEQUENCE WITH REVIEW module is similar to the SEQUENCE module. However, a SEQUENCE WITH REVIEW module allows the student to review any lesson or sub-module which s/he has already studied.

When the student first enters the sample module as a SEQUENCE WITH REVIEW module, s/he will be sent directly to lesson "Cells". The student will not see any of the text associated with the module.

As soon as the student finished lesson "Cells", s/he will be sent to the module display and the student will be able to choose to study either lesson "Cells" or lesson "Plants". The student will see the text in the module which is above and including the line which contains the "Plants" lessons.

After the student completes lesson "Plants", s/he will be able to choose any of the three lessons in the module and the student will see all of the text associated with this module.

After completing the first lesson or sub-module, the student can progress to any module available from the function keys. You can use "conditional modules" (explained earlier) if you do not want the student to progress until the module has been completed.

SUMMARY OF MODULE TYPES

When a module is created, it is automatically set to the "INDEX" type.

To change the type of a module, press "T" when editing the module.

There are three types of modules:

INDEX Modules
This is the most common type of module. The student always sees all of the module display and can choose any lesson or sub-module at any time.

SEQUENCE Modules
The student never sees a module display and is sent directly to the next lesson or sub-module as soon as the curent lesson or sub-module is completed.

SEQUENCE WITH REVIEW Modules
The student can choose either the next lesson or sub-module or any of the lessons or sub-modules which have already been studied. The student sees only the lines in the module that include and precede the next lesson or sub-module.

PRECAUTIONS FOR SEQUENCE AND SEQUENCE WITH REVIEW TYPES

If no data is being saved (for example, if there is no student data file or if the signon is a multiple), then the SEQUENCE and SEQUENCE WITH REVIEW modules will be treated as INDEX type modules.

For the SEQUENCE and SEQUENCE WITH REVIEW modules, use only lessons or modules which can be completed. In other words, the lessons must set "ldone" (give a *) and the modules must have completion criteria set by being able to leave the module by pressing NEXT.

FORCED EXIT

Students can leave a module without pressing a function key. This can be done by using "forced exit".

To specify "forced exit", type "F" while editing the module.

A conditions table (just like the table for conditional progression) can be made for forcing the student to exit a module. (See the chapter "Example Using Conditions" for more information on conditions.) If a forced exit condition is met, the student would be taken directly to the new module without seeing the module display for the current module.

For example, suppose a student is in module "review" and there is a forced exit of:

If: time(On System) > 180
then go to module: post-test

If the student has spent more than 180 minutes total time on the system (for all sessions), then the student will be sent directly to module "post-test".

Suppose the student leaves module "review" by a forced exit. Then module "review" will not be saved in the record of previous modules. Therefore, module "review" will not be used for the "default back progression", and pressing the BACK key will not automatically take the student back to module "review".

GRAPHICS

You can draw lines, circles, boxes, vectors, and arcs; and you can write in sized or rotated text by using the graphics options. The graphics will always be displayed after the regular text of the module. Using graphics will slow down the plotting speed of the module. For this reason, you should use graphics only if they are necessary. A good use of graphics would be to use boxes to separate information on a complex display.

To create or change a graphical display:

1. **Type "G" at the top arrow.**

2. **Type a name for the graphic.**
   Each graphic display must have a unique name. A module can only have one graphic display associated with the module. However, it is possible to share one graphic with more than one module.

You can place the graphic anywhere on the display. To place a graphic, use the arrow keys to move the cursor around. The cursor is a "+" and the initial placement is in the upper left corner of the screen.

Everytime you type an arrow key, the cursor will move 16 dots in the corresponding direction. You can also move 1 dot at a time by pressing the SHIFT-key at the same time as you press the corresponding arrow key.

When you are in the graphics editor, you will see these instructions at the bottom of the screen.

```
t-text      l-lines     s-skip      SHIFT-NEXT to store
c-circle    v-vector    b-box       COPY to copy
k-arc                               HELP available
```

text

To enter text:

1. **Position the cursor and then type "t".**

2. **Specify the size and rotation.**

3. **Press the CR key to enter another line of text after the current line.**

Example:

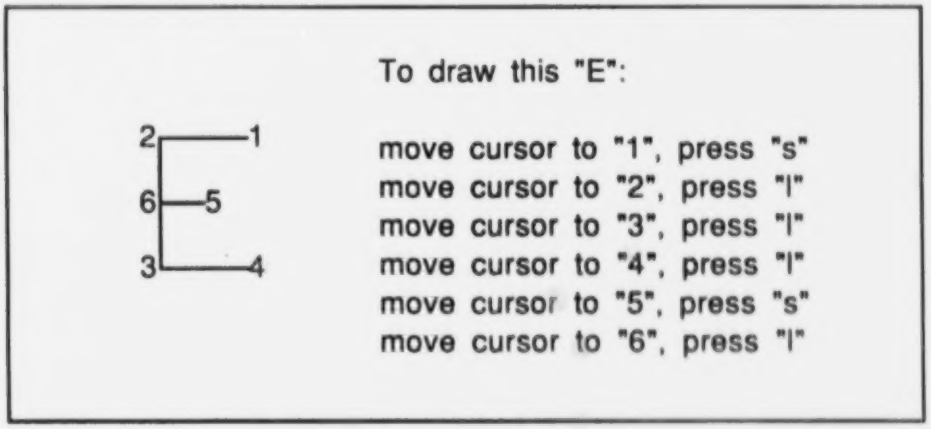
line drawings

You can draw any picture by plotting a series of lines.

To draw a series of lines:

1. **Move the cursor to the first location and type "s" for "skip".**
2. **Move the cursor to the next point and type "l" for line.**

Example:



circles

To draw a circle:

1. **Move the cursor to the location that would be the center of the circle, and press "c".**
2. **Choose whether you want a continuous (solid line) curve or a broken (dashed line) curve.**
3. **Move the cursor to a point on the edge of the circle and press "c" again.**

arcs

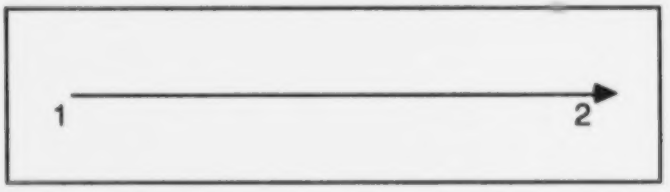
To draw an arc:

1. **Move the cursor to the start of the arc and press "k".**
2. **Choose whether you want a continuous or broken arc.**
3. **Move the cursor to any point on the arc (but not an endpoint), and press "k".**
4. **Move the cursor to the second endpoint and press "k" again.**

vectors

To draw a vector:

1. **Move the cursor to the tail of the vector (point "1" below) and press "v".**
2. **Move the cursor to the head of the vector (point "2" below) and press "v" again.**



boxes

To draw a box:

1. **Move the cursor to one corner of the box and press "b".**
2. **Choose the thickness.**
   For example, a thickness of "2" means that the edge of the box will be two lines thick.
3. **Move the cursor to the opposite corner of the box and press "b" again.**

storing graphics

When you are happy with the graphical display, press SHIFT-NEXT to store the graphics. Then, the graphical directions at the bottom of the display will be erased, and you will be able either to continue editing the module, or press SHIFT-NEXT to store the module.

copying graphics

You can copy a graphical display from the same or a different curriculum.

To copy a graphic:

1. **Pressing COPY.**
2. **Type the name of the curriculum, the READ codeword, and the name of the graphic to copy.**

deleting parts of the graphic

You can erase part of a graphic by:

1. **Elect to plot the existing graphic one item at a time.**

   (When you try to re-edit an exiting graphic, you are asked whether you want to plot the graphic all at once or whether you want to plot the graphic one item at a time. Choose to plot the graphic one item at a time.)

2. **Delete any item after it is plotted by pressing ERASE before the next item is plotted.**

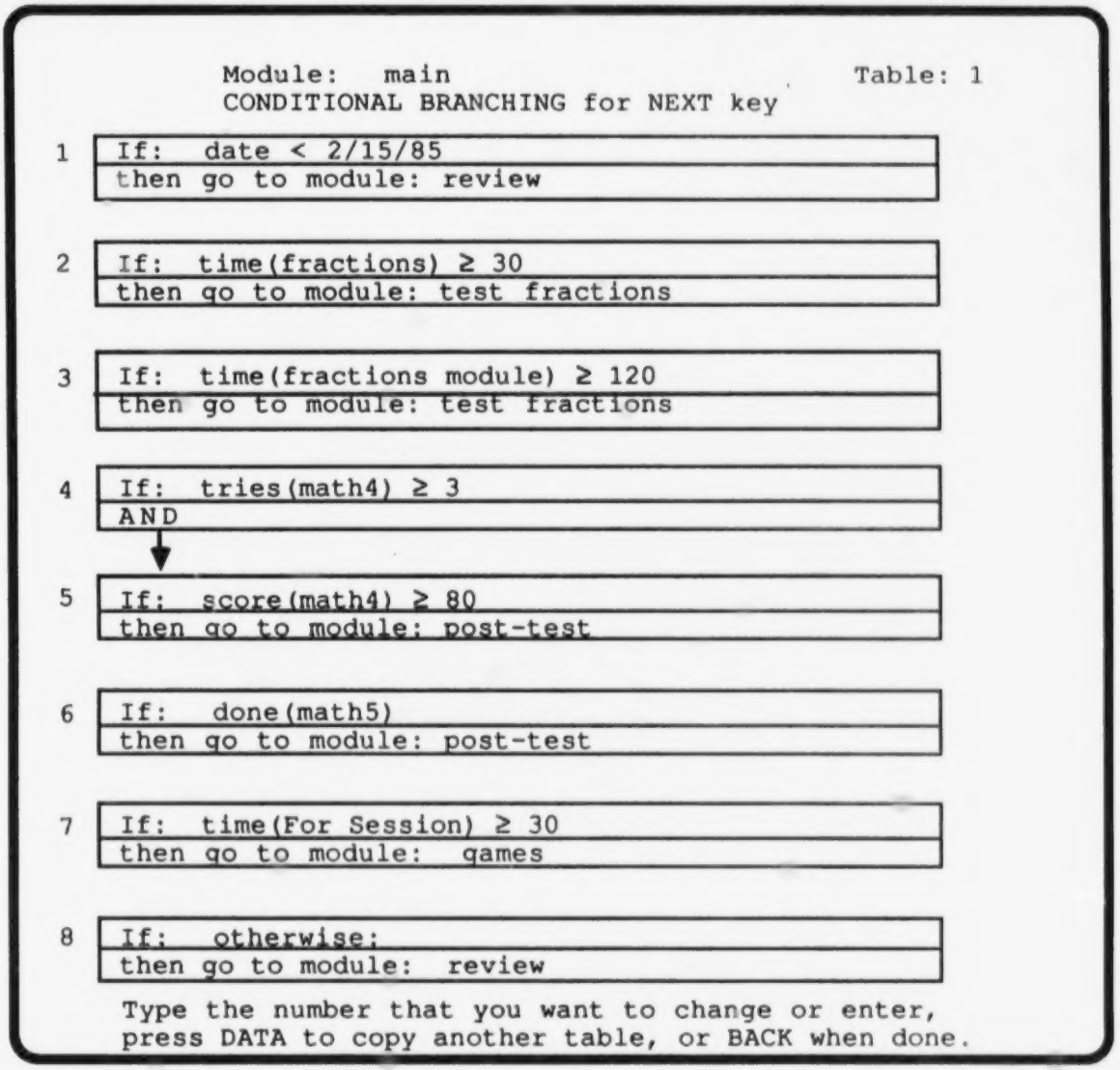
CHAPTER 3: EXAMPLE USING CONDITIONS

You can specify that the student will go to a different module or to a different lesson depending on the student's past performance.

The following list shows the different types of conditions that you can set:

Types of condition:	Examples: (*'ed conditions ignored by multiples)	
date	If: date > 2/15/85	
time	If: time(for lesson) < 50	*
	If: time(for module)≥120	*
	If: time for session≥34	
	If: time on system < 130	
	If: time≥3:30	
tries	If: tries(for lesson)≥3	*
	If: tries(for module) < 9	*
	(number of times module was accessed)	
score	If: score(for lesson)≥80	*
done	If: done(lesson)	*
	If: done(module)	*
	(done if the student exited the module by pressing NEXT)	
group	If: group = pso	
otherwise	If: none of the conditions listed above "otherwise" are true	

Up to 8 conditional branches can be specified for each entry. The following display shows a sample conditional chart.



Condition #1 specifies that if today's date is before 2/15/85, the student will be able to go to module "review".

If condition #1 is not true (in other words, if today's date is not before 2/15/85), condition #2 is evaluated. Condition #2 says that if the student has spent 30 minutes or more in lesson "fractions", the student can go to module "test fractions".

If conditions #1 and #2 are not true, condition #3 will be evaluated. This condition says that if the student has spent 120 minutes or more in module "fractions module", the student can go to module "test fractions".

Condition #4 and condition #5 will be evaluated if none of the previous conditions are true. If both conditions #4 and condition #5 are true, the student will go to module "post-test".

Condition #6 is evaluated if none of the previous conditions are true. Condition #6 says that if the student has completed lesson "math5" (if he gets a *), the student can go to module "post-test".

Condition #7 is evaluated if none of the previous conditions are true. Condition #7 says that if the student has spent 30 minutes on the computer for this session (since the last time s/he signed on), the student can go to module "games".

Finally, condition #8 is evaluated if none of the previous conditions are true. The "otherwise" conditions says that if none of the other conditions are true, the student will go to module "review".

No conditions true

If you do not have an "otherwise" condition, and if none of the conditions are true, the student will not be allowed to exit this module by pressing the appropriate key.

Multiple signons or no student data file

The only conditions that are evaluated for a multiple signons (or a signon where there is no student data saved) are:

time for session
time for system
time of day
group
otherwise.

A signon which is not saving student data will just skip the other conditions and evaluate the next condition.

Copy conditions

The same conditional table can be used more than once in a curriculum.

To copy a conditional table:

1. **Pressing DATA to copy another table.**

2. **Type table number to copy.**

   Each conditional table is identified by a number and the number is specified when copying tables. If you look at the upper right hand corner of the conditional table display, you will see the table number which identifies the table for copying purposes.

CHAPTER 4: SPECIFY INITIAL MODULE

To specify which module the students should see when they sign on for their first session, use option 2 (Specify INITIAL module in curriculum).

C U R R I C U L U M E D I T O R
group: "trial" curriculum file: "trialcur"
Choose an option:
1 EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOG
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-EDIT to destroy the curriculum,
BACK for other options, or
HELP for more information.

Every curriculum should specify an "initial module". You will need to enter the module's name when specifying the module.

The initial module is the default case for the curriculum. This means that this is the module that you would like the majority of students to see the first time they sign on.

Initial Module for Specific Group

Sometimes you may have several groups sharing one curriculum. In this case, you may want different groups to start with different modules. You can do this by changing the initial module for each group.

To change the initial module for a particular group:

1. **Enter "Group Operations" if you are an instructor, or enter *crouter* if you are an author.**
2. **Use the "Group Specific Options" to change the initial module for that group.**

Initial Module for Individual User

Sometimes you will want to change the module that an individual student will start, or resume, with.

To change which module an individual user should start with:

1. **Instructors should enter "Group Operations", or authors should enter *crouter*.**
2. **Choose the option to "See Student DATA".**
3. **Choose to "See or Change someone's record" and enter the student's name.**
4. **Change the current module for that student.**

CHAPTER 5: UNIVERSAL FUNCTION KEYS

To specify function keys which will be active for ALL modules, use Universal Function Keys. To specify a Universal Function Key, use option 3 (Specify Universal Function Keys).

CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
Choose an option:
1 EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOG
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-EDIT to destroy the curriculum,
BACK for other options, or
HELP for more information.

For example, assume that you want SHIFT-BACK to always return the user to the module "main". Then, you could set the Universal SHIFT-BACK to module "main". This means that in any module in the curriculum, the student can press SHIFT-BACK and go to module "main".

After specifying a universal function key, you will be asked if you want to clear the SHIFT-BACK pointers in all of the existing modules. If you answer "yes", any module that has a SHIFT-BACK pointer will have that pointer cleared. If you choose "no", none of the SHIFT-BACK pointers in the other modules will be cleared.

If the student is in a module which has a module specified for the key that the student pressed, then the student goes to that specified module rather than to the module listed in the Universal Function Key table. In other words, **specifications in the current module override the Universal Function Key specifications**. For example, if the Universal SHIFT-BACK is set to module "main" and the SHIFT-BACK for module "chemistry" is "science", then the student will go to module "science" when s/he presses SHIFT-BACK from the module "chemistry".

Example:

Suppose you want SHIFT-BACK from all the modules to go to module "main". However, you don't want SHIFT-BACK to be active when the student is in module "main".

To do this:

1. **Enter the Universal key table.**

    a. Set the Universal SHIFT-BACK to module "main".

2. **Edit module "main".**

    a. Press "k" to set the function keys for module "main".

    b. In the function key table for module "main", choose to set the SHIFT-BACK key.

    c. Press LAB for special functions (instead of typing a module name).

    d. Choose the special function NO EXIT. (The NO EXIT setting in module "main" will override the Universal SHIFT-BACK setting. The student can still leave this module by any other function key which is active or the student can leave the system by pressing SHIFT-STOP.)

CHAPTER 6: RENAME/COPY/DELETE MODULES

RENAME A MODULE

To give a module a different name, use option 4 (RENAME a module).

CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
Choose an option:
1 EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOG
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-EDIT to destroy the curriculum,
BACK for other options, or
HELP for more information.

If you use this option, you do not need to worry about changing all of the places that refer to the old module name. For example, assume module "one" says press NEXT for module "two". If you rename module "two" to "math", you will not have to go back into module "one" and change the NEXT key. The NEXT key in module "one" will automatically be updated to point to module "math".

COPY A MODULE

To copy a module from this curriculum or a different curriculum, use option 5 (COPY a module).

CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
Choose an option:
1 EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOG
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-EDIT to destroy the curriculum,
BACK for other options, or
HELP for more information.

Suppose you want some of the modules in your curriculum to be the same as some of the modules in a different curriculum. You can do this by copying modules:

To copy modules from another curriculum:

1. **Enter the name of the other curriculum and the READ RECORDS codeword for the other curriculum.**

2. **To copy one module at a time type the name of the module that you want to copy from.**

   Edit the function key tables and conditional lesson or sub-module lines in your new curriculum. (The function key table and conditional lines are not copied from one module to a new module.)

3. **To copy multiple modules press DATA for a list of modules instead of typing the module's name.**

   You will then see a list of modules, each module with a number.

   a. Type the numbers of the modules. For example, typing "2,4-6,10" will put stars next to the modules #2, #4, #5, #6, and #10.

   b. Type the number of a module which is already starred, to remove a star.

   c. Press SHIFT-NEXT when all of the modules that you want to copy are starred.

   d. Edit the function key tables and conditional lesson or sub-module lines in your new curriculum. (The function key table and conditional lines are not copied from one module to a new module.)

Example:

Suppose you want to copy a module "main" into your curriculum. Let's assume that module "main" has two sub-modules named "one" and "two".

If module "one" does not yet exist in your curriculum, then an empty module "one" will be created and you will need to copy module "one" from the other curriculum.

If you already have a different module "two" in your curriculum, then you will need to copy the new module "two" into a different name (let's call the new name "second"). Then you will need to go into module "main" and change the sub-module name from "two" to "second".

DELETE A MODULE

To destroy a module, use option 6 (Delete a module).

C U R R I C U L U M E D I T O R
group: "trial" curriculum file: "trialcur"
Choose an option:
1 EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOG
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-EDIT to destroy the curriculum,
BACK for other options, or
HELP for more information.

To delete one module at a time:

1. **Type the name of the module that you want to delete.**
2. **Press NEXT after typing the name.**
3. **Press SHIFT-HELP (an extra precaution) before the module is deleted.**

To delete more than one module at a time:

1. Pressing DATA for a list of modules instead of typing the module's name.

   You will then see a list of modules, each module with a number.

   a. Type the numbers of the modules. For example, typing "2,4-6,10" will put stars next to the modules #2, #4, #5, #6, and #10.

   b. Type the number of a module which is already starred, to remove a star.

   c. Press SHIFT-NEXT when all of the modules that you want to delete are starred.

Example:

Suppose you delete a module which is referenced by a second module (for example, listed as a sub-module or as a function key in the second module). If this happens, then those references in the second module will be cleared.

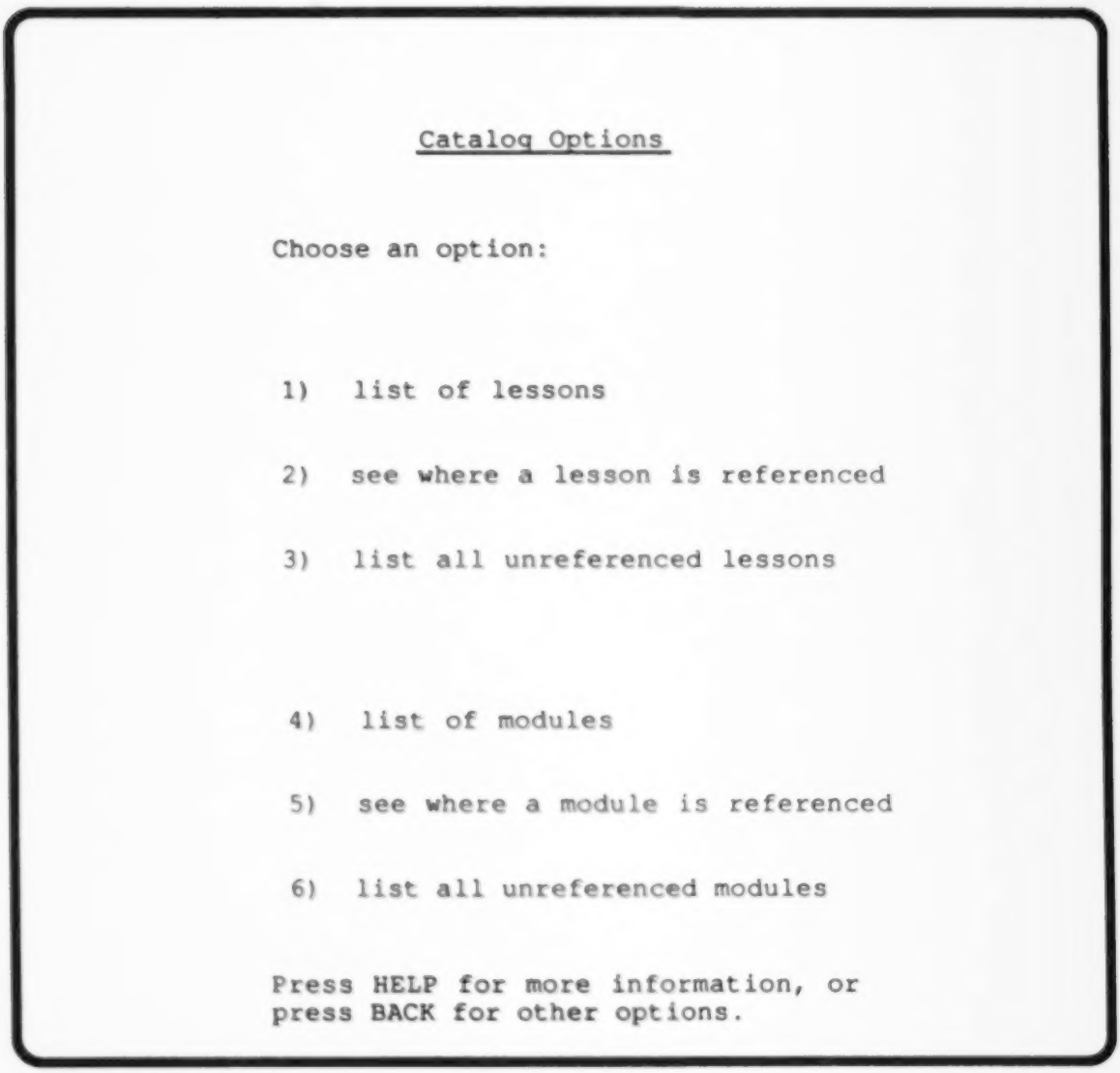
CHAPTER 7: SEE CATALOG

The *crouter* curriculum editor maintains two catalogs, one is a list of lessons used in the curriculum, the other is a list of modules used in the curriculum.

To see the catalogs associated with your curriculum, use option 7 (See CATALOGS).

C U R R I C U L U M E D I T O R
group: "trial" curriculum file: "trialcur"
Choose an option:
1 EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOG
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-EDIT to destroy the curriculum,
BACK for other options, or
HELP for more information.

The following display shows the *crouter* catalog options.


Catalog Options
Choose an option:
1) list of lessons
2) see where a lesson is referenced
3) list all unreferenced lessons
4) list of modules
5) see where a module is referenced
6) list all unreferenced modules
Press HELP for more information, or
press BACK for other options.

lesson catalog

Every time a new lesson is added to the curriculum, the lesson is given a unique id number. A lesson which is used more than once in a curriculum will only have one id number and will only be listed once in the catalog. This means that there will also only be one entry for each student in the student data file for this lesson.

If a lesson is deleted from the curriculum, it is not automatically deleted from the catalog. A lesson which had been used at one time in the curriculum but which was later removed is an "unreferenced lesson". Unreferenced lessons can be deleted from the catalog. To delete an unreferenced lesson from the catalog, use either the option to "see where a lesson is referenced" or "list all unreferenced lessons". These options will allow you to delete

unreferenced lessons. WARNING: Delete unreferenced lessons only if you plan never to use them again. Deleting an unreferenced lesson and then re-entering it could cause problems with your student data.

module catalog

The module catalog is a list of all modules which currently exist in the curriculum. If a module is deleted, its entry is deleted from the module catalog.

An unreferenced module is one which was created but there is no way for the student to see the module. A module is unreferenced if all of the following are true:

- there is no way to get to it from another module (either by sub-module or by function key)
- it is not the initial module in the curriculum
- it is not in the Universal Key Table

You can delete unreferenced modules by using the option to "see where a module is referenced" or the option to "list all unreferenced modules". Either option will allow you to delete unreferenced modules.

CHAPTER 8: SPECIFY ALTERNATE CHARACTER SET

To write in a different style, or different alphabet, use option 8 (Specify an alternate CHARACTER SET).

C U R R I C U L U M E D I T O R
group: "trial" curriculum file: "trialcur"
Choose an option:
1 EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOG
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-EDIT to destroy the curriculum,
BACK for other options, or
HELP for more information.

In addition to the letters and symbols which are always available from the keyset, authors can design special character sets. (See lesson "aids" for more information.) Since it takes a while to load the alternate character set into the terminal, you should use them only when it is necessary. An example of a good use of an alternate character set would be for a Hebrew curriculum.

If you already have a character set created which you would like to use when designing your modules, you can use this option.

You will need to specify the name of the lesson which contains the character set and the name of the block where the character set is stored.

When you are editing the module, type FONT (which is a shifted key), when you want to switch into, or out of, the alternate character set.

CHAPTER 9: PRINT A CURRICULUM

To get a copy of your curriculum on paper, use option 9 (PRINT Curriculum).

C U R R I C U L U M E D I T O R
group: "trial" curriculum file: "trialcur"
Choose an option:
1 EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOG
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-EDIT to destroy the curriculum,
BACK for other options, or
HELP for more information.

This option will allow you to get a printed copy of your curriculum on paper. You must provide a empty nameset where your curriculum will be stored in a format that is suitable for printing. Therefore, you will need to ask your account director to create a nameset for you. *Crouter* will estimate how large your nameset should be if you choose option 9 (Print Curriculum).

After this option has completely stored the curriculum, you can request a print of the nameset. Use lesson "print" to request a print.

CHAPTER 10: DESTROY ENTIRE CURRICULUM

To delete all of the modules, press SHIFT-EDIT (to destroy the curriculum).

CURRICULUM EDITOR
group: "trial" curriculum file: "trialcur"
Choose an option:
1 EDIT a module
2 Specify INITIAL module in curriculum
3 Specify Universal Function KEYS
4 RENAME a module
5 COPY a module
6 DELETE a module
7 See CATALOG
8 Specify an alternate CHARACTER SET
9 PRINT Curriculum
Press SHIFT-EDIT to destroy the curriculum,
BACK for other options, or
HELP for more information.

This option completly destroys the curriculum. This means that all of the modules are deleted.

If someone else is using your curriculum for their group, you should inform them that you plan to destroy the curriculum before choosing this option. This will allow them to make alternate plans for their students before the curriculum is destroyed.

This is a very drastic measure and should be done only if you don't want to save any part of the curriculum. Since this is such a drastic measure, you will have to press SHIFT-HELP before the curriculum is destroyed.

The curriculum file keeps the last date that the file was destroyed. Therefore, if you destroy the curriculum and a student had been using the curriculum before it had been destroyed, the student's student data will be destroyed the next time the student signs on. This is because the student data references lessons used in the previous curriculum, not in the current curriculum.

APPENDIX

Setting up Groups

If you have a normal group and need to set it up to be a "Crouter group", you will have to do the following:

1. Have an *author* set some information in the group's directory.

This information can be set only by someone with an author signon (perhaps your account director).

To set the information in the group directory:

a. Enter the **name** of the group on the AUTHOR MODE display.

b. While in the group, **press DATA** for the **group description**. Pressing DATA will take you to the group directory.

c. Enter the **associated files** section of the group directory and set the **student router** to *crouter*. Also, set the **instructor router** to *icrouter*.

d. Enter the **codeword** section of the group directory, set the **write records** codeword to any typeable word. A typeable word is a codeword that you can type as opposed to a group or account coded codeword. In other words, after you enter this codeword you should see a row of *'s for the codeword.

Setting up a Curriculum File

If you have a nameset and need to set it up to be a "Crouter curriculum file", you will have to do the following:

1. **Make sure the nameset is the correct size.**
   (You will need to determine the number of modules (or displays) that you will need for the curriculum. To determine the number of modules, use the chapter of this manual "Structure of a Curriculum".)

   The size of the nameset should be:

record size	-- 64 words
name size	-- 20 characters
records	-- (number of modules + 11) x 2.5
names	-- number of modules + 11

   (If you are interested in how much disk space this uses, you can estimate about 1 disk part for every 13 modules. The minimum size curriculum file should be 2 parts.)

2. **Have an*author* set some information in the nameset's directory:**

   a. Type the nameset's **name** on the AUTHOR MODE display.

   b. While in the nameset, press DATA for **file information** which will take you to the **file directory**.

   c. Enter the **associated files** section of the directory. Set the **processor lesson** to *crouter* and give it **read only** (ro) access.

   d. Enter the **codewords** section. Set the **read records** codeword to a typeable word. A typeable word is a codeword that you can type as opposed to a group or account coded codeword. In other words, after you enter this codeword you should see a row of *'s for the codeword.

Creating Student data files

If you have a nameset and need to set it up to be a "Crouter student data file", you will have to do the following:

1. **Make sure the nameset is the correct size.**

   a. Determine the maximum number of students. (This will be called "max.stus".)

   b. Determine the average number of lessons that each student will go into. (This will be called "avg.les".)

   The size of the nameset should be:

record size	-- 64 words
name size	-- 30 characters
records	-- (max.stus +1) x (avg.les/10)
names	-- max.stus + 1

   (If you are interested in how much disk space this will use, you can estimate that the number of disk parts is equal to ((max.stus x avg.les)/200).)

2. **Have an *author* set some information in the nameset's directory:**

   a. Type the **name** of the nameset on the AUTHOR MODE display.

   b. While in the nameset, press DATA for **file information**, which will take you to the file directory.

   c. Enter the **associated files** section of the file directory. Set the **processor lesson** to *crouter* and give it **read/write** (rw) access.

   d. Enter the **codewords** section and set the **write records** codeword to a typeable word. A typeable word is a codeword that you can type as opposed to using group or account coded codewords. In other words, after you enter this codeword you should see *'s for the codeword.